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## THE NEW YORK HARBOR WAGE ADJUSTMENT.

BY BENJAMIN M. SQUIRES.

### INTRODUCTION.

The history of labor adjustments affecting the employees on harbor craft in the port of New York is of transcendent interest and importance. The preponderating importance of New York as the leading port of entry and departure in this country, and for that matter in the whole world, makes it far and away the most important industrial center anywhere. New York is the "neck of the bottle" through which most of the supplies necessary to our allies and to maintaining our forces at the fighting front must pass. The necessity of keeping the "neck" open can not be overemphasized. To do this it is imperative that there be the least possible delay in the loading or unloading of ships. The arrangement of port and terminal facilities, however, is such that practically all of the freight must be transferred between warehouses, piers, and terminals and to or from ship's side. This necessitates the use of large numbers of harbor craft. A strike or lockout of employees operating these craft would force an immediate suspension of shipping and would probably do more to aid Germany and to injure the allied cause than a strike or lockout that tied up the coal mines and the iron and steel industry of the country.

The record of the achievements of the Board of Arbitration, New York Harbor Wage Adjustment, is of especial interest as showing the development of conciliation and arbitration work. The board was created by voluntary agreement entered into by representatives of New York harbor boat owners and employees with the United States Shipping Board. Its jurisdiction was and is strictly limited geographically and industrially to New York harbor boats and employees. With the taking over of the railroads by the Government, railroad marine equipment and employees at the port of New York came within the jurisdiction of the Railroad Administration. No authority was given to the board other than recommendation and moral suasion. When these failed the Shipping Board was appealed to and its power to confiscate privately owned boats was used to enforce awards made by the Board of Arbitration. The inevitable confusions, conflicts, and differences in awards which are unavoidable so long as labor adjustments are in the hands of distinct and independent boards, each applying its own principles of wage fixing, are admirably illustrated in the short annals of this board. It is very

clear that to stabilize industry it is necessary to have a Nation-wide system of dealing with labor unrest under a single responsible direction and with authority to enforce awards.

An article entitled "New York harbor employees," appearing in the July, 1918, MONTHLY LABOR REVIEW (pp. 1-21), set forth the wages and working conditions of New York harbor boat employees and one, "Associations of harbor boat owners and employees in the port of New York," in the August issue (pp. 45-62), traced the development of associations of these employees, culminating in the formation of an industrial union, the Marine Workers' Affiliation of the Port of New York, and the concerted demands of October 8, 1917. The adjustment of these and subsequent demands and particularly the problems to which such adjustments have given rise is the subject of this article.

#### ORIGIN OF THE BOARD OF ARBITRATION.

A more strategic time for a united effort on the part of New York harbor employees than the fall of 1917 could not have been selected. Plans for participation in the War on a large scale were beginning to take definite form. Large numbers of men were being sent to the cantonments. Shipyards and munitions plants were beginning to demand men and to attract them by large wages. In the midst of these demands for labor, supplies were being rushed in ever-increasing quantity to the port of New York for overseas transportation. Under these circumstances, it was to be expected that the Government would view with no little concern any danger of interruption to transportation activities at the port of New York. Accordingly, when it was brought to the attention of the United States Shipping Board that the October 8 demands of the New York harbor employees conveyed a threat to quit work on November 1, 1917, unless the demands were granted, no time was lost in requesting the representatives of employees to appear before the Shipping Board at Washington.

Plans for the adjustment of wages and working conditions of shipyard employees by a labor adjustment board, and of men engaged in the loading and unloading of vessels—the longshoremen—by a national adjustment commission, were already in operation. Each of these adjustment bodies included representatives of employers, employees, and the Government. A similar plan was proposed to the representatives of the New York harbor employees and was accepted by them in the following agreement dated October 15, 1917:

To the United States Shipping Board:

We, the undersigned, make the following proposal for an adjustment of the demands made by the unions as represented for a new schedule of wages and rules for the port of New York effective November 1, and to remain in force for one year from that date:



(1) We agree to submit these demands to a board of three; one to be appointed by the Shipping Board, one to be appointed by the unions involved, and one by the employers.

(2) We further agree during the period of the War to submit any differences which can not be settled by the employers and employees to the decision of this board.

(3) We also agree to waive the demand that all boats are to be manned by none but members of our associations; but there must be no discriminations of any kind against union men, and the board shall have the power to arbitrate any question of discrimination.

(4) If the employers will agree to accept the decision of such a board, we agree to be bound by its decision; and pending decisions of any disputes work shall continue uninterruptedly.

It will be observed that the agreement amounted to an open shop, a no-strike policy for the duration of the war and, moreover, provided that the decision of the arbitration board with reference to the then existing demands would be effective for a period of one year. In view of subsequent events, these facts are significant.

The agreement was signed by the representatives of Masters, Mates, and Pilots, Marine Engineers, Tidewater Boatmen, and for the Harbor Boatmen, by the president of the International Longshoremen's Association, with which association both the Harbor Boatmen and the Tidewater Boatmen were affiliated.<sup>1</sup> Immediately thereafter the United States Shipping Board sent telegrams to leading harbor boat owners requesting a conference in New York on the following day.

At this conference, 19 boat owners appeared before Vice Chairman Stevens of the Shipping Board. The conference was characterized by a violent opposition to the Marine Workers' Affiliation, by charges that the harbor employees were not unionized, and that this was an attempt on the part of a few agitators to force unionism upon boat owners. The Marine Engineers' Association was credited with 50 per cent, the American Association of Masters, Mates, and Pilots with 25 per cent, and the Harbor Boatmen's Union with 10 per cent, respectively, of the total employees in the occupations over which each union claimed jurisdiction. Exception was taken to arbitration in general on the ground that it would tend to unionize the port, and in particular to the form of arbitration suggested in the agreement signed by representatives of the harbor unions.

A second conference with boat owners was called October 20 at which the New York Towboat Exchange submitted the following statement:

The representatives of a majority of the owners of tugs and barges in New York Harbor, having determined, after careful investigation and personal interviews, that a majority of their employees are loyal and satisfied with their present conditions of employment and scale of wages and have no knowledge of any threatened strike out-

<sup>1</sup> See article on "Associations of harbor boat owners and employees in the port of New York," MONTHLY LABOR REVIEW, August, 1918, pp. 45-62.

side of what they have read in the newspapers and, furthermore, it was resolved, with a full realization of the seriousness of a strike in this port at the present time, that a committee be appointed to meet with Vice Chairman Stevens, of the Shipping Board, at a conference on Saturday, October 20, and that this committee be and is hereby instructed as follows:

First. That they assure Mr. Stevens, and, through him, the Government, that the large majority of our employees are satisfied and that there is not the slightest danger of any interference or delay with either Government or other work in the port of New York.

Second. That we can not consent to any arbitration with the above-named Marine Workers' Affiliation, since they represent only a very small minority of our employees.

Third. That we would welcome a full, complete, and impartial investigation by the Shipping Board of the conditions and hours of labor and rate of wages paid to all our employees: Be it further

*Resolved*, That a copy of this document be presented by the committee to Mr. Stevens.

The New York Boat Owners' Association submitted the following:

The New York Boat Owners' Association (Inc.), representing more than 150 of the principal owners and operators of tugboats, coal boats, barges, scows, and lighters, etc., in New York Harbor and vicinity, who employ more than 3,500 men on such equipment, respectfully submit the following:

First. That, in their opinion, the organization known as the Marine Workers' Affiliation does not represent but a small and inconsequential percentage of the men employed on the floating equipment of the harbor and adjacent waters.

Second. That a very great majority of the workers are satisfied with their present working conditions and wages.

Third. That, for the above cogent reasons, the members of this association are unalterably opposed to arbitrating any questions with the Marine Workers' Affiliation.

Fourth. That we court a thorough investigation by the Shipping Board, as to the existing conditions of the various marine employment concerned.

Fifth. That we are perfectly agreeable to submit any questions that might arise to a board, as suggested by Vice Chairman Stevens, on October 16, viz, a representative of the Shipping Board, a representative of the Department of Commerce, and a representative of the Department of Labor.

It was finally agreed to accept the Government arbitration board, made up, as suggested, of a representative each of the Shipping Board, the Department of Labor, and the Department of Commerce. This agreement, dated October 20, 1917, differs in other important respects from the agreement of October 15, and is given in full.

We, the undersigned owners and operators of tugs, barges, lighters, ferryboats, and other harbor marine equipment in the port of New York, hereby agree with the United States Shipping Board that, during the period of the war, we will submit all differences concerning wages or conditions of labor involved in the operation of such marine equipment which can not first be adjusted by the employers and the employees to the decision of a Government board of three men, to be appointed as follows: One by the United States Shipping Board, one by the Department of Commerce, and one by the Department of Labor.

This Government board shall have no authority to pass upon the question of open or closed shop, or the recognition of unions, but we agree that there shall be no discrimination of any kind against union men, and the board shall have power to determine questions of discrimination.

A similar agreement with one additional provision that "pending the decision of said board, work shall continue uninterruptedly" was signed on the same date by representatives of the harbor unions.

In addition to the change in the form of arbitration, the agreement of October 20, as contrasted with that first suggested, makes no mention of the duration of awards and does not commit the unions to a no-strike policy except "pending the decision of said board." This omission, together with the phrase "which can not first be adjusted by the employers and the employees," gave rise to later difficulties.

#### FIRST AWARD OF THE BOARD.

Steps were taken immediately by the Shipping Board to create the arbitration board provided for in the agreement. In the meantime, a new wage demand was submitted to the boat owners on October 24. This demand differed from the demand of October 8 chiefly in that no mention was made of a closed shop. About the same time the Lighter Captains' Union was organized as a local of the International Longshoremen's Association, and submitted a separate wage demand.

In the arbitration that followed, two factors stand out prominently: First, the unwillingness on the part of employers to have anything to do with union representatives, and, second, the insistence by employers that there was nothing to arbitrate. Thus, on the latter point, the Lighterage Association of the Port of New York submitted a statement that "Our employees, having been denied by their association the right to first endeavor to adjust their differences with their various employers, in violation of the agreement made with Mr. Stevens on October 20, we feel that in appearing before your board we are waiving the rights guaranteed us by that agreement." The agreement provided for arbitration of disputes that "can not first be adjusted by the employers and employees." Many of the companies were making voluntary increases, others were endeavoring to make agreements with their employees. This was particularly true of the railroads, who had insisted from the beginning that they had nothing in common with other operators and should be permitted to handle their own case. As in previous conferences, separate hearings were held with employers and employees. One joint hearing was given in spite of the protests of the employers, who took the attitude of "sitting in" rather than participating.

An award was made November 16, effective November 1, 1917, establishing a minimum wage and providing that "nothing in this award shall be construed to decrease the pay or allowance or to increase the hours of labor now in effect or that were in effect on or prior to November 1, 1917." The duration of the award was not indicated.<sup>1</sup>

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<sup>1</sup> MONTHLY REVIEW, January, 1918, pp. 230-233.



The following table shows comparatively the wages previously received, demanded, and awarded.

TABLE 1.—WAGES AWARDED NEW YORK HARBOR EMPLOYEES IN COMPARISON WITH WAGES DEMANDED AND PREVIOUSLY RECEIVED.

Occupation.	Wages previously received.					Demands of Oct. 24, 1917.		Award of arbitration board, Nov. 16, 1917.			
	July, 1914.		July, 1917.			Minimum monthly wage rate.	Additional allowance per day for board.	Minimum monthly wage rate.	Additional allowance per day for board.		
	Number reported.	Average monthly wage rate. <sup>1</sup>	Number reported.	Monthly wage rate. <sup>1</sup>							
				Minimum.	Average.						
Tugboats and lighters.											
Captain.....	128	\$139.14	176	\$117	\$148.25	\$150	\$0.60	\$125	\$135	\$145	\$0.60
Licensed mate.....	37	82.86	44	83	109.59	\$100	.60	90	100	125	.60
Engineer.....	122	127.12	175	100	139.95		.60	115	125	135	.60
Engineer assistant.....	32	83.31	41	98	121.04		.60	105	115	125	.60
Deckhand.....	215	59.34	300	53	75.22	\$60	.60	60	65		.60
Cook.....	91	59.12	122	63	74.42		.60		60	62	.60
Fireman.....	234	61.62	307	63	79.92	60	.60		60	65	.60
Oiler.....	19	65.93	17	80	80.35		.60			65	.60
Ferryboats.											
Captain or pilot.....	94	146.56	92	125	153.18	150	.60			160	
Engineer.....	132	135.33	117	117	142.59	140	.60			150	
Wheelman.....	32	61.24	37	65	70.81	72	.60			80	
Deckhand.....	300	60.56	250	60	62.03		.60			70	
Fireman.....	219	80.23	192	73	84.94	\$60	.60			80	
Oiler.....	62	80.01	58	60	84.39	\$65	100	.60	\$80	85	
Covered barges.											
Captain.....	269	55.86	375	60	65.90	\$4 per day..				77	
Lighters with hoists.											
Captain.....	148	59.86	230	60	73.75	\$4 per day..			\$85	90	
Stationary hoisting engineer.....	45	76.61	59	75	86.39	" 5 per day			\$95	100	
Coal boats, grain boats, and scows.											
Captain.....	400	46.20	591	50	60.94	70				70	
Car floats.											
Floatmen.....	33	56.60	38	60	66.18	60	.60			60	.60

<sup>1</sup> Includes board if board was allowed in addition to wages.

<sup>2</sup> Wages classified according to cylinder diameter of engine.

<sup>3</sup> Licensed to navigate, \$130; not required to handle boat, \$100.

<sup>4</sup> Required to navigate, \$125; on tugs doing transport work, \$100; not required to handle boat, \$90.

<sup>5</sup> First deckhand \$65; others, \$60.

<sup>6</sup> Cook on boats with one deckhand, \$62; with more than one deckhand, \$60.

<sup>7</sup> One fireman, \$65; more than one, \$60.

<sup>8</sup> Oiler with marine engineer's license, \$100; without license, \$65.

<sup>9</sup> Oiler with marine engineer's license, \$85; without license, \$80.

<sup>10</sup> Steam or gasoline hoist less than 15 tons, \$85; more than 15 tons, \$90.

<sup>11</sup> Demand presented Mar. 15, 1918.

<sup>12</sup> Steam hoist of less than 15 tons, \$95; more than 15 tons, \$100; awarded Mar. 20, 1918.

The demands presented in October, 1917, by the Marine Workers' Affiliation on behalf of engineers, captains, tidewater boatmen, and harbor boatmen, specified a 12-hour working day, one day off per week with pay to all employees, and two weeks' vacation with pay to all "captains and engineers of self-propelled boats who have been in the employ of one company for a period of one year or more." Captains of barges, boats, or scows shifting or loading at night were to receive \$2 per night. Captains or engineers on self-propelled boats were to receive \$1 per hour for overtime work. Other employees on these boats were to receive 50 cents per hour for overtime. The lighter captains' demands presented separately specified a 10-hour working day, 75 cents per hour for night cargo work, \$2 per night for watching, and \$3 per night for night towing.

In the award, a sharply defined distinction in working conditions was made between employees of self-propelled and nonself-propelled boats. To the former, one day off per week was granted with pay, and one week's vacation per year with pay to all employees who had been in the service of any one company for a period of one year or more. Overtime was to be compensated at the rate of time and one-half. The working day was assumed to be governed by steamboat-inspection regulations. To employees of nonself-propelled boats no overtime was granted; the hours per day were not specified and no provision was made for time off with pay. Compensation in addition to the monthly wage was allowed only in the case of lighter captains, to whom \$1 and \$1.50 was awarded for watching at night, the higher rate to be paid if the captain was required to do deck watching.

The absence of provisions in the award defining the length of the working day for captains of nonself-propelled boats or fixing rates for overtime and night work was due in part to the varying conditions under which these boats operate. Towing and shifting at night were represented by employers to be inherent in harbor transportation and compensated by corresponding periods of idleness, waiting for tides, cargo, or vessels. Emphasis was given also by employers to the fact that most of these boats were equipped with cabins and that on many of them the captain lived with his family, so that he received rent in addition to his wages; and, moreover, that being on the boat at night meant, for the most part, simply sleeping on the boat. To this the employees replied that living on the boat was a convenience to the employer and a hardship to the employees, preventing them from establishing homes ashore and educating their children. Night shifting, loading, or discharging was claimed to require that the captains be on deck at irregular intervals to handle lines, display lights, or supervise the handling of cargo.

Immediate exception was taken by employees to the absence of provisions for additional compensation to captains of nonself-propelled boats for night work, and the board was requested to define the working day and establish rates for overtime. To this request, however, the board replied that the award had been made after a consideration of all conditions and that it was not deemed advisable to attempt to define the hours between which work of this nature should be performed.

#### ENFORCEMENT OF THE AWARD.

It is in making the award effective, however, rather than in making the award, or in the terms thereof, that the New York harbor wage adjustment represents a radical departure from other wage adjustments and is of more than local interest.

In the MONTHLY LABOR REVIEW for August, 1918, reference was made to the number of owners of harbor craft (probably 500), to the character of ownership, ranging from individual to corporate and from municipal to Federal, and to the lack of a complete record.

Harbor boat owners had been accustomed to individual arrangements with their own employees. They were opposed to unionism and to arbitration, and were thus predisposed to object to any interference. Moreover, there was an unwillingness on the part of many owners to be bound by an agreement which, though signed by representatives of the boat owners, had not been assented to formally by each owner individually. Under these circumstances, it might be expected that considerable difficulty would be experienced in putting an award into effect.

Employees, on the other hand, were quick to take advantage of the opportunity afforded for recognition and organization. The growth in union membership was rapid. Employers who had insisted that their employees were not members of any union, had made no wage demands, and were satisfied, discovered suddenly that their employees were wearing union buttons and were complaining to the officials of their unions that they were not enjoying the wages and working conditions awarded by the Government. Since the hope of securing the increased wages awarded by the board was in many cases the inducement for joining the union, and since the union officials actively concerned themselves to secure the conditions of the award for their members, any delay in compliance with the award was the occasion for unrest. This was particularly true among the new members, who failed to understand why they did not receive their wages immediately after paying their initiation fees and dues. The older members and the members of organizations more accustomed to collective action, of course, were more willing to listen to assurances that the award would be made effective. However, with a



body of nearly 15,000 workers ranging from the unskilled to the master-workman class, many of whom were accustomed neither to collective bargaining nor to arbitration, the idea of waiting for the Government to enforce its own wage awards was too unique to be generally accepted. Doubt was openly expressed of the intention or the authority of the Government to make its award effective.

During the month of December, 1917, more than 100 boat owners were complained against. These included not only individual owners, but the marine departments of railroads, and municipal, State, and Federal agencies. The Government-operated boats did not comply with the terms of the award either as to wages or working conditions.

Complaints for the most part were filed by the representatives of unions. Quite naturally, these were the cases where union members were not being paid according to the award. Each of the complaints was brought to the attention of the company against whom it was made. Many denied the charges of noncompliance; others promised compliance; still others were openly defiant, claimed not to be parties to any agreement, and questioned the authority of the arbitration board either to make an award or to enforce it. A considerable number ignored the communication. Most frequent was a request for the name of the employee making the complaint and the explanation that their employees had not requested an increase in wages or a change in working conditions.

By the end of January, 1918, approximately 200 companies had been reported as not complying with the award. Municipal, State, and Federal operators were still among the delinquents and non-compliance by these and by private owners was made an excuse for noncompliance by others. Those who had complied felt that they had been "stung" by so doing. Employees previously skeptical of the assurances that compliance would be enforced were now thoroughly convinced that the Government had no intention of enforcing the award and began to set dates for strike action. Conservative leaders were openly criticized and repudiated. Less conservative leaders, in order to avoid a like fate, encouraged criticism alike of the board of arbitration and those who counseled patience.

In the meantime the railroads had been placed under Federal control and a commission appointed to adjust wages and working conditions. Order No. 8, issued February 21 by the Railroad Administration, directed that no changes should be made in the wages or working conditions of railroad employees pending the recommendation of the commission. The railroad marine equipment in the port of New York came within the scope of the order and those railroads which had not previously complied with the award were fortified against further action.

The most perplexing question before the board of arbitration was how to enforce the award. Created by agreement entered into by employers and employees, the board was without direct legal authority to compel compliance with its awards. An open letter sent to boat owners requesting immediate compliance reduced the number of violators. Lists of delinquent owners placed in the hands of the several boat owners' associations effected a further reduction, but in January, 1918, there were still nearly 100 individual operators reported as not complying.

Finally new demands were submitted by three of the harbor unions, the Harbor Boatmen, the Tidewater Boatmen, and the Lighter Captains. Telegrams were sent to the Shipping Board fixing a date for strike action unless the demands were met. On February 19 the Shipping Board called a conference with representatives of employees and urged them not to complicate the situation by injecting new demands before the previous award was made effective. Assurances were given that steps would be taken immediately to compel compliance. The following day boat owners appeared before the Shipping Board and expressed the belief that cases of noncompliance were few. Assurances of cooperation were given and a committee of owners was appointed to work with the Shipping Board and with the arbitration board in making the award generally effective.

In order to ascertain at first hand the validity of complaints, the board of arbitration sent out a force of investigators and inspected the pay rolls of 80 companies against whom complaints had been filed. More than 60 of these were found to be not complying with the award. As soon as it became apparent that the cases of persistent violation were substantially as represented by the employees and that many of the violations had previously been denied by employers, the Shipping Board was requested to subpoena the offending companies. Briefs were prepared showing the nature of the violation and on March 8, 1918, 40 owners were summoned to appear before the Shipping Board and answer to the charge of noncompliance with the award. Twenty owners promised compliance prior to the issuance of the summons and were not directed to appear. All but two of those summoned agreed to comply, though protesting against the award. Of these two, one gave notice the following day of intention to comply, the other refused and steps were taken immediately by the Shipping Board to commandeer the boats. Before actual seizure, however, compliance was promised and the action was stopped.

This action on the part of the Shipping Board had a wholesome effect on individual owners, most of whom complied promptly with the award. The unrest which had developed among employees, however, was not to be stilled and the board of arbitration was re-

requested to grant a hearing on the demands previously presented by three unions and to the demands of a union not previously represented, namely, Local 379 of the International Union of Steam and Operating Engineers.

The request was acceded to and hearings given, representatives of employees and employers meeting separately with the board as in previous conferences. An award was made March 20, 1918, establishing a wage scale and working conditions for hoisting engineers.<sup>1</sup> Lighter captains were given pay for overtime in connection with cargo work. Tidewater boatmen were given a flat rate of \$10 per month for work at night in loading or discharging cargo in excess of four nights per month. The board declined to grant further wage increases, however, to harbor boatmen, tidewater boatmen, or lighter captains until September 30, 1918, when, it was stated, the entire case might be reopened.

#### JURISDICTION AND MEMBERSHIP OF THE BOARD.

To this decision the four harbor unions affected took violent exception, voted to destroy the award, withdraw their demands and their agreement to abide by the decision, charged that the board was unfair, and appealed the case to the newly organized National War Labor Board. The War Labor Board, in turn, referred the case to the Shipping Board. As explained previously, however, the Shipping Board had no central agency for handling disputes of harbor employees. The National Adjustment Commission was created to handle disputes of longshoremen. The Labor Adjustment Board of the Emergency Fleet Corporation was concerned with disputes in shipyards. The Arbitration Board, New York Harbor Wage Adjustment, although created by agreement with the Shipping Board and having a representative of the Shipping Board as one member, was nevertheless a board of final jurisdiction existing by agreement between employers and employees. The agreement contained no provision for appeal and presumably without arbitrary action no appeal could be accepted without the consent of the parties to the agreement. The boat owners refused to consent to an appeal to the National Adjustment Commission, and a strike seemed imminent. The situation was again laid before the National War Labor Board. Representatives of employees and employers, parties to the agreement of October 20, 1917, were requested to appear before the National War Labor Board at Washington, and on May 14, 1918, met for the first time in joint conference. The result was the following modification of the original agreement:

It is agreed by the representatives of the employers and employees, parties to the agreement dated October 20, 1917, that said agreement be modified to the extent that

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<sup>1</sup> See Table 1, p. 6.



two additional members be added to the Board of Arbitration, New York Harbor Wage Adjustment, one to be appointed by the representatives of employers and the other to be appointed by the representatives of the employees, and that a rehearing of present controversies be had before such enlarged board, and both parties agree to be bound by the findings and decisions of such board in respect of all present and future controversies during the period of the war;

And, furthermore, that said board will endeavor to require all parties to carry out the terms of previous agreements and awards until a change is decided upon by such board.

It will be observed that the modified agreement not only provided for the addition to the board of one representative each of employers and employees and a rehearing on existing demands, but also that both parties were to be bound by the decisions of the board.

In accordance with the above agreement, two members were added to the board of arbitration. Joint hearings were held May 21 and 22, and a tentative award was agreed upon by the board. Before the award could be promulgated, however, Order 27 was issued by the Director General of Railroads,<sup>1</sup> announcing wage increases applicable to railroad employees, including "employees of railroads operating ferries, tugboats, lighters, barges \* \* \*." The application of the order to railroad marine employees, approximating 40 per cent of the harbor employees, meant the establishment of two sets of wage rates and working conditions, which it was felt would jeopardize the interests of the port. The attention of the Railroad Wage Commission had previously been directed to this, and in the recommendations of the commission it was provided that "the award of the commission shall not be applicable to those employees whose compensation is the result of adjustments by or through any agency established for the purpose by the Navy Department, the War Department, the Department of Commerce, the United States Shipping Board, or any other Government agency created since the entry of the United States into the war." This recommendation was not adopted by the Director General of Railroads.

As soon as Order 27 was made public representatives of the harbor unions protested against a distinct wage for railroad marine employees and particularly against the percentage increase provided in Order 27 which, based upon rates in 1915, would restore differentials in wage rates for identical classes of labor. In view of this protest, and because the railroads were parties to the agreements of October 20, 1917, and May 14, 1918, the board of arbitration voted to withhold its decision until the matter could be brought to the attention of the Railroad Administration.

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<sup>1</sup> See MONTHLY REVIEW for June, 1918, pp. 1-21.

The case was laid before the Board of Railroad Wages and Working Conditions. Officials of the harbor unions appeared before the board and testified to their unwillingness to have Order 27 applied to the railroad marine workers in the port of New York. Representatives of the Arbitration Board and of the Shipping Board urged that the situation would be hopelessly confused by the application of two distinct awards. The tentative award of the Board of Arbitration was reviewed and the Railroad Administration approved it informally, suggesting that it be issued recommendatory to the Railroad Administration. The award was issued June 8, effective until May 31, 1919, unless in the judgment of the board conditions should warrant a change prior to the date of expiration. In a subsequent order under date of June 18, 1918, the Railroad Administration confirmed the award, making it applicable to railroad marine employees in the port of New York.

No increase was granted to captains and engineers in the June award. After the award was issued, representatives of these employees requested that consideration be given to them in view of the increases granted to other employees and the increases that would have been received by railroad marine captains and engineers. Boat owners also requested that a rehearing be given on certain points. Before granting a rehearing, and in order to cooperate more fully with the Railroad Administration, the agreement of October 20, 1917, was again modified to provide for two additional board members, one representing the railroads and one representing employees.

#### THE AWARD OF JULY 12.

A rehearing was held before the enlarged board now consisting of seven members. Increases were granted to captains and engineers and minor changes were made in the award of June 8. These amendments and additions were approved by the Railroad Administration, embodied in the June 8 award, and reissued July 12, 1918, effective as of June 1, 1918, and conditionally for one year thereafter. The wages demanded by the employees and awarded by the board of arbitration<sup>1</sup> are given in Table 2.

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<sup>1</sup> The full text of the award is given on pp. 22 to 26.

TABLE 2.—WAGES DEMANDED BY NEW YORK HARBOR EMPLOYEES AND AWARDED BY BOARD OF ARBITRATION.

Occupation.	Wages demanded.					Wages awarded.				
	Oct. 24, 1917.		May 21, 1918.		Per cent of increase. <sup>2</sup>	Nov. 16, 1917.		July 12, 1918.		Per cent of increase. <sup>2</sup>
	Month-ly wage rate.	Addi-tional for board. <sup>1</sup>	Month-ly wage rate.	Addi-tional for board. <sup>1</sup>		Month-ly wage rate.	Addi-tional for board. <sup>3</sup>	Month-ly wage rate.	Addi-tional for board. <sup>4</sup>	
Tugboats and steam lighters.										
Captains: <sup>5</sup>										
Class I.....	\$150.00	\$0.60	(*)	(*)	.....	\$125.00	\$0.60	\$140.00	\$0.75	11.6
Class II.....	150.00	.60	(*)	(*)	.....	135.00	.60	150.00	.75	10.9
Class III.....	150.00	.60	(*)	(*)	.....	145.00	.60	160.00	.75	10.2
Mates or pilots <sup>7</sup> .....	130.00	.60	(*)	(*)	.....	125.00	.60	140.00	.75	11.6
Mates <sup>8</sup> .....	100.00	.60	(*)	(*)	.....	100.00	.60	115.00	.75	14.0
Engineers: <sup>9</sup>										
Class I.....	140.00	.60	(*)	(*)	.....	115.00	.60	130.00	.75	12.5
Class II.....	140.00	.60	(*)	(*)	.....	125.00	.60	140.00	.75	11.6
Class III.....	140.00	.60	(*)	(*)	.....	135.00	.60	150.00	.75	10.9
Oilers.....	65.00	.60	\$110.00	\$0.80	61.5	65.00	.60	80.00	.75	19.2
Deckhands, first <sup>10</sup> .....	65.00	.60	100.00	.80	49.4	65.00	.60	80.00	.75	19.2
Deckhands, second.....	60.00	.60	95.00	.80	52.6	60.00	.60	75.00	.75	21.2
Firemen, 1 employed	65.00	.60	110.00	.80	61.5	65.00	.60	80.00	.75	19.2
Firemen, more than 1.....	60.00	.60	110.00	.80	71.8	60.00	.60	75.00	.75	21.2
Cooks <sup>11</sup> .....	60.00	.60	95.00	.80	52.6	60.00	.60	75.00	.75	21.2
Cooks <sup>12</sup> .....	60.00	.60	95.00	.80	52.6	62.00	.60	77.00	.75	20.7
Ferryboats.										
Captains or pilots.....	150.00	.60	(*)	(*)	.....	160.00	.....	175.00	.....	9.4
Wheelmen.....	72.00	.60	(*)	(*)	.....	80.00	.....	95.00	.....	18.8
Engineers.....	140.00	.60	(*)	(*)	.....	150.00	.....	165.00	.....	10.0
Oilers <sup>13</sup> .....	100.00	.60	(*)	(*)	.....	85.00	.....	100.00	.....	17.6
Oilers <sup>14</sup> .....	65.00	.60	110.00	.80	61.5	80.00	.....	95.00	.....	18.8
Firemen, 1 employed	65.00	.60	110.00	.80	61.5	80.00	.....	95.00	.....	18.8
Firemen, more than 1.....	60.00	.60	110.00	.80	71.8	80.00	.....	95.00	.....	18.8
Deckhands, first <sup>10</sup> .....	65.00	.60	100.00	.80	49.4	70.00	.....	85.00	.....	21.4
Deckhands, second.....	60.00	.60	95.00	.80	52.6	70.00	.....	85.00	.....	21.4
Car floats.										
Floatmen.....	60.00	.60	95.00	.80	52.6	60.00	.60	75.00	.75	21.2
Scows and dumpers.										
Captains.....	70.00	.....	100.00	.....	42.8	70.00	.....	85.00	.....	21.4

<sup>1</sup> Per day.<sup>2</sup> In computing percentage increases board allowance is included in wages.<sup>3</sup> Per day, 30 days per month.<sup>4</sup> Per day, 6 days per week unless employee works seventh day.<sup>5</sup> The wages of captains and engineers are classified according to the cylinder diameter of the engine with which the boat is equipped. Class I is 10 to 15 inches; Class II, over 15 inches and including 18 inches; Class III, 20 inches and over and compound or triple expansion engines.<sup>6</sup> No specific demands made.<sup>7</sup> Licensed mates or pilots required to navigate the boat.<sup>8</sup> Licensed mates on tugs doing transport work.<sup>9</sup> The wages of captains and engineers are classified according to the cylinder diameter of the engine with which the boat is equipped. Class I is 10 to 15 inches; Class II, over 15 inches and including 18 inches; Class III, 20 inches and over and compound or triple expansion engines. Assistant engineer \$10 less per month than engineer on same class of boat.<sup>10</sup> First deckhands and where but 1 deckhand is employed during 24 hours.<sup>11</sup> Where more than 1 deckhand is employed in 24 hours.<sup>12</sup> Where but 1 deckhand is employed in 24 hours.<sup>13</sup> Required to have marine engineer's license.<sup>14</sup> Not required to have marine engineer's license.



TABLE 2.—WAGES DEMANDED BY NEW YORK HARBOR EMPLOYEES AND AWARDED BY BOARD OF ARBITRATION—Concluded.

Occupation.	Wages demanded.					Wages awarded.				
	Oct. 24, 1917.		May 21, 1918.		Per cent of increase.	Nov. 16, 1917.		July 12, 1918.		Per cent of increase.
	Monthly wage rate.	Additional for board.	Monthly wage rate.	Additional for board.		Monthly wage rate.	Additional for board.	Monthly wage rate.	Additional for board.	
Captains.....	Coal boats and grain boats.									
	70.00	.....	100.00	.....	42.8	70.00	.....	90.00	.....	28.6
	Covered barges, lighters, and hoisters.									
Captains: 1										
Class I.....	\$4.00	.....	\$4.50	.....	12.5	\$77.00	.....	\$3.50	.....	18.6
Class II.....	\$4.00	.....	\$4.50	.....	12.5	85.00	.....	\$3.75	.....	15.2
Class III.....	\$4.00	.....	\$4.50	.....	12.5	90.00	.....	\$4.00	.....	15.9
Engineers: 2										
Class I.....	\$5.00	.....	\$6.00	.....	20.0	95.00	.....	\$4.25	.....	16.7
Class II.....	\$5.00	.....	\$6.00	.....	20.0	100.00	.....	\$4.50	.....	14.9
Class III.....	\$5.00	.....	\$6.00	.....	20.0	100.00	.....	\$5.00	.....	30.4

<sup>1</sup> Wages classified according to type of boat: Class I includes covered barges and lighters with hand-hoisting gear; Class II, gasoline or steam hoist of less than 15 tons' capacity; Class III, gasoline or steam hoist of more than 15 tons' capacity.

<sup>2</sup> Per day.

<sup>3</sup> Wages classified according to capacity of hoist: Class I includes lighters having steam hoists of less than 15 tons' capacity; Class II, lighters having steam hoists of more than 15 tons' capacity; Class III, steam hoisters. First demands submitted Mar. 15, 1918. First award made Mar. 20, 1918.

In addition to the wage demands in Table 2, certain changes in working conditions were demanded. The captains of coal boats, grain boats, scows and dumpers asked for a 12-hour day and for \$2 per night for loading or discharging cargo. To captains of scows and dumpers, \$1 per night was granted. Captains of coal boats and grain boats were granted \$5 more per month than captains of scows and dumpers with no additional compensation for night work. Captains of lighters and covered barges asked for a 10-hour day, \$2 per night for watching or towing, overtime at the rate of time and one-half for work in connection with cargo, and double time for Sundays. These demands were granted with two exceptions. The rate of watching and towing was put at \$1.50 per night. No mention was made of Sunday work except that time in excess of six days per week should be compensated at time and one-half. Hoisting engineers asked for a 9-hour day, double time for Sundays and holidays, and overtime at the rate of time and one-half. A 10-hour day was maintained with time and one-half for work in excess of 10 hours per day or six days per week. The harbor boatmen—firemen, deckhands, cooks, oilers, and floatmen—asked for a 12-hour day, one day off per week with pay and one week's vacation per year with pay to all employees in the service of one company for one year

or more. These had been granted previously and were reaffirmed. They asked for a board allowance of 80 cents per day and for 75 cents per hour overtime. They were granted 75 cents per day in lieu of board and overtime at the rate of time and one-half. The increase to licensed officers also included 75 cents per day in lieu of subsistence. All employees were required to give 48 hours' notice before leaving their positions and were entitled to receive the same notice before being discharged. The penalty in each case was two days' pay.

The wages and working conditions set forth above were accepted by harbor employees with one exception. The Harbor Boatmen's Union gave notice to the board that the award would be accepted as effective until December 31, 1918, at which time new demands would be presented. Boat owners objected to several provisions in the award. The Towboat Exchange took exception to the provisional duration of the award, requesting that it be fixed arbitrarily at one year. The increase to captains and engineers was held to be too great, but would be accepted as of July 1, 1918, rather than June 1. The owners of scows and dumpers protested also against the provisional duration of the award and in addition objected to the wage scale for captains of these boats. Both of these groups of owners appealed to the National War Labor Board for a rehearing. No action was taken by the War Labor Board, however, and in the meantime proposed further increases by railroad marine departments united private owners in a protest against such increases and overshadowed the above objections.

#### JURISDICTIONAL DIFFICULTIES SETTLED AND STILL PENDING.

Prior to the issuance of Order 27 by the Railroad Administration, wide publicity had been given to the contemplated wage increases and to the lump sums that employees would receive by virtue of the increases being retroactive to January 1, 1918. As soon as the order was promulgated the railroad marine departments at the port of New York posted notices setting forth the wage schedules. Several commenced paying under these rates prior to the subsequent order annulling Order 27 and confirming the award of the board of arbitration. When notices were posted announcing the change to the harbor award, railroad employees assumed immediately that they would lose the increases accruing from January 1. Moreover, the rates under Order 27 were in some cases higher than those established by the board of arbitration. This, together with a misconstruction of Order 27 leading many to believe that the rates established therein were for an eight-hour day with additional compensation for time in excess of eight hours, led to a protest from railroad employees against being placed under the award of the board of arbitration. A num-

ber of firemen whose rates were reduced thereby left their boats and other railroad employees threatened similar action. The claim was repeated, this time by the railroad employees as well as by the railroads, that the railroad marine departments should not be classed with other harbor interests. Many of the railroad marine employees were not members of the harbor unions and proceeded to organize a union of their own. Even those railroad employees who were members of harbor unions protested that they had not been represented in the hearings before the Board of Railroad Wages and Working Conditions and asked to have Order 27 restored.

To end the confusion, a conference was arranged between the railroad board, the Shipping Board, and the arbitration board at which it was agreed that Order 27 would be effective until June 1, 1918; that no subsequent payments to employees would be taken away, but that thereafter the award of the board of arbitration would apply. This award, however, provided that wages effective on or prior to June 1, 1918, should not be reduced. Accordingly, it was held by the railroads that wherever the rates under Order 27 were higher than those established by the arbitration board, the former would apply to railroad employees who thus received the high rates under both awards.

The application of Order 27, in part, created new difficulties. Prior to the November award, the wages of railroad marine employees were not uniform. Order 27 was based upon rates in December, 1915, and thus restored wide differentials for identical classes of labor. Now that the railroad employees had received the highest rates under both awards, they protested against the variations in rates as between the railroads. Accordingly, the railroad marine departments requested authority to standardize wages on the basis of the highest rates paid by any railroad. This request aroused private owners and led to a vigorous protest not only against the proposed upward standardization of wages of railroad marine employees but also against applying to these employees the high rates under both awards. Telegrams were sent to the Railroad Administration and to the War Labor Policies Board setting forth that the result would be destructive competition for labor contrary to presidential proclamation. No further action was taken, but the railroad marine employees continue to enjoy the rates under Order 27 wherever they were in excess of rates under the award of the board of arbitration.

As indicated previously, the problem of standardizing wages and working conditions of marine employees in the port of New York is difficult at best on account of the large number of owners and the varying conditions of operation. It is practically impossible with



divided jurisdiction in making and enforcing wage awards. Over private owners, for the most part, the Shipping Board can exercise its commandeering power to compel compliance. To take over equipment, however, means either to operate it or to let it lie idle. The latter simply puts the employee in the position of looking for a job. The Shipping Board may thus be expected to exercise the power reluctantly, if indeed it has the authority, in the case of property that can not be used in the shipping program. Moreover, if the seizure of property is to be in the nature of a penalty to the owner, such action would be ineffective in the case of equipment that barely paid costs of operation. Thus some of the private ferry companies have not complied with the award, claiming inability to meet the increased cost of labor. The property would be of no use to the Shipping Board and its seizure would probably do little more than afford owners an opportunity to unload their equipment.

Over city, State, and Federal agencies, including railroad marine departments, the Shipping Board has no jurisdiction. After numerous conferences, appeals, and threats of strike action, the city of New York has made arrangements to pay the wage scale to its ferryboat employees. The Federal Departments have not complied in full with either award. The Railroad Administration, although confirming the last award of the arbitration board, has not relinquished jurisdiction over marine employees, and complaints of non-compliance must be submitted to adjustment agencies of the Railroad Administration.

As opposed to this position of the employing interests, employees are for the most part united in their demands. To them the question of jurisdiction is irrelevant and is looked upon as a means of shifting the responsibility. They claim, with a degree of justice, that they were in a position to enforce their demands and that, having agreed to arbitration, they have a right to expect that awards will be made effective. A situation is thus created which practically forces centralized control as the only means of meeting it. To continue to adjust the wages and working conditions of marine workers in the port of New York and elsewhere by distinct agencies of adjudication, each applying its own principles of wage fixing, will lead to endless confusion and lessen the effectiveness of each agency.

#### ARBITRATION BEFORE AND AFTER THE WAR.

Apart from the attempt to enforce awards, which in this country is a radical departure from the functions of prewar agencies of adjustment, is the effect of such action not only upon the contending parties but upon the method of adjustment and the character of the decision. Too often in the past arbitration has followed the line

of least resistance. With much unction, the lion's share has been awarded to the lion. Decisions proposing any other settlement were speedily forgotten because not enforced. Those submitting to arbitration frequently did so with the mental reservation that the decision to be acceptable must at least approximate the conditions they felt they would be able to establish by a show of strength. From this position to one of complacent acceptance of arbitrary decisions, applied not to an isolated group but seeking to comprehend all labor of a given class, is a long step for both employers and employees.

In voluntary wage adjustments both sides have been accustomed to the familiar process of higgling. Employees have asked more than they expected to get; employers have offered less than they were willing to give. The result was a compromise determined in large part by the relative strategic positions of the opposing parties. In arbitrary wage adjustments, the absence of well-defined and acceptable standards to be used in wage determination as well as the difficulty in enforcing awards that did not conform closely to the law of supply and demand has forced arbitrators to resort to the expediency of splitting the difference. Cost of living, proportionate expense of labor, and net profits, when taken into account, have been more often invoked in defense of claims made than as means for determining what claims were just in the circumstances.

With the changed industrial conditions due to the war, a new era has been entered upon in wage adjustments. In essential war industries, the unusual demand for labor placed employees in a position to secure demands with little effort. Competition for labor often made for wage increases in advance of demands. In less essential industries, employees were fortified in their demands by the attractive wages in other industries. The large task of the Government, therefore, was to stabilize the labor market and to prevent the waste, due either to destructive competition for labor, or to strikes to enforce demands. To do this, however, in view of numerous and frequent demands it is necessary that a definite policy be followed in wage adjustments. The aim of each governmental agency of adjudication has been to standardize wages and working conditions but, with an almost total lack of standards to serve as a basing point, a stupendous task was faced. In some industries, a minimum wage based upon an estimated minimum of comfort, in others, a percentage increase over wages at a given time, based in part upon the increased cost of living, has been adopted. In still others, an attempt has been made to establish a uniform wage for each occupation and to grant increases in proportion to increased living expenses.

In the New York harbor wage adjustment, the principle of a minimum wage was adopted in the first award. The demands of the men were for an established minimum on the theory that the better paid could make necessary readjustments. The minimum established, however, did not purport to approximate the minimum of subsistence, and no effort was made to determine what such a minimum should be for the class of labor in question. That the cost of living was not taken into account consistently by employees is apparent from demands presented a few months later, which ranged from 12 to 70 per cent in excess of the first demands. Nor did the principle of the minimum wage prove satisfactory. A canvass of wages paid three months after the first award showed that the average approximated the minimum established by the award. In this case the minimum wage approximated the maximum wage. The action taken later by railroad employees in demanding the application of the railroad award wherever in excess of the harbor award, even though the minimum under the former was below the minimum in each occupation under the latter, indicates, too, that the employees were not willing to stand solely by the principle of a minimum wage.

#### ARBITRATION AND LABOR ORGANIZATION.

Quite naturally, opposition to unionism could not long have a place in the new program. Not only were the unions in a position to enforce recognition, but arbitration made it necessary to deal with representatives of employees. Thus the provision in the harbor agreement that the board had no authority to pass upon questions of open or closed shop was of little significance. As previously explained, employers refused at first to sit in joint conference with union representatives. Many objected even more strenuously to being approached by them in reference to compliance with the award. The board of arbitration went so far as to address a letter to the different unions stating that complaints must be filed with the board and not taken up with employers except through the board. To the extent that this was observed, however, it served rather to emphasize differences between employers and employees and to increase the work of enforcement than to avoid the question of unionism. Employees found it easier to report to their unions than to take the matter up directly with their employers. Minor complaints were thus magnified by being brought to the attention of the "board." Representatives of unions, relieved of the burden of attempting to adjust differences, were enabled to concentrate their energies upon securing new members. Every forced adjustment was an argument in favor of organization, for in spite of endeavors to have cases of noncompliance reported, whether affecting union or nonunion employees,



few complaints have come to the board except from members of organizations. Indeed the spread of organization might almost be traced by the dates of complaints sent in. To-day a nonunion employee learns that he is not receiving the wages awarded by the board. To-night he joins the union and to-morrow a complaint against a hitherto unlisted company is filed with the board. This applies more particularly to the unskilled, but it serves at once to emphasize the lack of whole-hearted cooperation on the part of many employers in not complying until complained against and to explain why, in numerous instances, complaints of noncompliance are presented for the first time nine months after the first award was made. It is difficult to see how such a situation can be met without a central registry of operators and compulsory wage reports.

Employers have thus been justified in the openly expressed fear that arbitration would mean the recognition of unions. What they did not foresee was that the greatest encouragement to growth in union membership would come from noncompliance with awards, thus placing the unions constantly in the foreground as complainants and as a ready avenue for presenting complaints. The standardization of wages and working conditions, at first regarded as unwarranted interference with the interests of individual employers, has come to be looked upon as a stabilizing influence, placing all employers on more nearly the same basis in competing for business.

Nor has unionism proved to be the dire menace that was expected. On the contrary the greatest danger now lies in the rapidly growing independence of the individual employee. That is to say, as wages and conditions of employment become a matter of governmental regulation during a period of labor shortage, will not the individual employee become independent both of his union and the good will of his employer, thus finding himself in the peculiar position of being a union member without the compelling motive for membership, of having his compensation fixed not as a result of his own efforts or efforts of his union but by an arbitration award, and of finding his services so greatly in demand that his job is no longer conditioned upon his efficiency? That the situation is not entirely problematical is indicated by the charge—made too repeatedly to be without some foundation of fact—that employees are not putting forth their best efforts, and by the unwillingness of individual members to be bound by acts of their associations which though in the interest of the majority may not be of the greatest immediate advantage to an individual. Under these circumstances it may well be that industry will find itself unable to meet the demands of war and that a condition of chaos will follow the dissolution of agencies of adjudication created, and the removal of restrictions imposed, by the Government "for the period of the war."

It is immediately imperative that a definite labor program be adopted that shall seek to comprehend not only present but after the war industrial problems. The central purpose in such a program must be the standardization of wages and working conditions not only during the period of the war, but for such time thereafter as may be required to make necessary readjustments in industry. These standards when fairly conceived and established should be accepted by both employers and employees without the necessity of using the authority of the Government to make the standards effective. Applied in this spirit there will be little danger of destroying the "instinct of workmanship," of weakening the feeling of interdependence of employer and employee, or of lessening the solidarity of labor.

#### APPENDIX.

##### Award of Board of Arbitration, New York Harbor Wage Adjustment.

The following award was made under date of July 12, 1918, by the Board of Arbitration, New York Harbor Wage Adjustment, United States Shipping Board, in regard to wages and working conditions of employees engaged in the operation of tugs, barges, lighters, ferryboats and other harbor marine equipment in the port of New York, also river vessels engaged in carrying on the commerce of the port of New York.

Whereas, on October 20, 1917, the following agreements were entered into with the United States Shipping Board:

"We, the undersigned representatives of labor employed in the operation of tugs, barges, lighters, ferryboats, and other harbor marine equipment in the port of New York, hereby agree with the United States Shipping Board that, during the period of the war, we will submit all differences concerning wages or conditions of labor involved in the operation of such marine equipment, which can not first be adjusted by the employers and the employees, to the decision of a Government board of three men, to be appointed as follows: One by the United States Shipping Board, one by the Department of Commerce, and one by the Department of Labor.

"This Government board shall have no authority to pass upon the question of open or closed shop, or the recognition of unions; but there shall be no discrimination of any kind against union men, and the board shall have power to determine questions of discrimination; and pending the decision of said board, work shall continue uninterruptedly.

"T. V. O'Connor, International Longshoremen's Association; Chas. H. Sheerton, Tidewater Boatmen's Union; John E. Nebenbergh, Harbor Boatmen's Union; T. L. Delahunty, Marine Engineers' Beneficial Association, No. 33; James Moran, Marine Engineers' Beneficial Association, No. 33; William A. Maher, American Association of Masters, Mates and Pilots, No. 1."

"We, the undersigned owners and operators of tugs, barges, lighters, ferryboats and other harbor marine equipment in the port of New York, hereby agree with the United States Shipping Board that, during the period of the war, we will submit all differences concerning wages or conditions of labor involved in the operation of such

marine equipment which can not first be adjusted by the employers and the employees to the decision of a Government board of three men, to be appointed as follows: One by the United States Shipping Board, one by the Department of Commerce, and one by the Department of Labor.

"This Government board shall have no authority to pass upon the question of open or closed shop or the recognition of unions, but we agree that there shall be no discrimination of any kind against union men, and the board shall have power to determine questions of discrimination.

"W. J. Fripp, Chairman General Managers' Association; Charles H. Jackson, Vice President Brooklyn Eastern District Terminal; Joseph H. Moran, New York Towboat Exchange; Owen J. McWilliams, President New York Boat Owners' Association; William Simmons, Lighterage Association of Port of New York; Arthur Ackerman, Lighterage Association of Port of New York; E. A. Kelly, Clyde, Mallory, Ocean, and Old Dominion Steamship Cos.; B. F. Hanfield, New York, Ontario & Western Railway Co.; C. L. O'Connor, M. & J. Tracy; Dan F. McAllister, McAllister Steamboat Co.; Thos. Toomey, Hudson River Lighterage."

And whereas, a board of arbitration having been constituted in accordance with the above agreements, an award was made on November 16, 1917,<sup>1</sup> and

Whereas, representatives of stationary hoisting engineers having become parties to the agreement of October 20, 1917, an award covering these employees was made on March 20, 1918, and

Whereas, representatives of stationary hoisting engineers, lighter captains, tidewater captains, and harbor boatmen, having expressed dissatisfaction with the awards affecting these employees and having been denied further increases by the board of arbitration until September 30, 1918, an appeal was taken to the National War Labor Board and the following agreement was entered into May 14, 1918:

"It is agreed by the representatives of the employers and employees, parties to the agreement dated October 20, 1917, that said agreement be modified to the extent that two additional members be added to the Board of Arbitration, New York Harbor Wage Adjustment, one to be appointed by the representatives of employers, and the other to be appointed by the representatives of the employees, and that a rehearing of present controversies be had before such enlarged board, and both parties agree to be bound by the findings and decisions of such board in respect of all present and future controversies during the period of the War;

"And furthermore, that said board will endeavor to require all parties to carry out the terms of previous agreements and awards until a change is decided upon by such board.

"Representing employers: Edward A. Kelly, Clyde, Mallory, Ocean, and Old Dominion Steamship Cos.; Joseph H. Moran, New York Towboat Exchange; James M. MacKenzie, New York Boat Owners' Association; W. B. Pollock, New York Harbor Railroads; Charles L. O'Connor, M. & J. Tracy; William Simmons, Lighterage Association, Port of New York.

"Representing employees: T. V. O'Connor, International Longshoremen's Association; William A. Maher, American Association of Masters, Mates, and Pilots, No. 1; T. L. Delahunty, Marine Engineers' Beneficial Association, No. 33; A. M. Sarrell, International Union of Steam and Operating Engineers, Local 379; S. J. Condon, Lighter Captains' Union; F. Paul A. Vacarelli, Harbor Boatmen's Union; John Brennan, President Tidewater Boatmen's Union."

<sup>1</sup> See MONTHLY REVIEW for January, 1918, pp. 230-233.



And whereas two members having been added to the board of arbitration, in accordance with the agreement of May 14, 1918, an award was made June 8, 1918, affecting all classes of harbor boat employees with the exception of pilots and engineers; and Whereas representatives of boat owners having requested a rehearing on certain points in the award of June 8, 1918, and representatives of pilots and engineers having requested consideration in view of increases granted to other employees; and Whereas the Railroad Administration having confirmed the award of June 8, making it applicable to railroad marine employees, and to the end that the board of arbitration might cooperate more closely with the Railroad Administration in adjusting wages and working conditions of marine employees in the port of New York, the following agreement was entered into June 20, 1918:

"It is agreed by the representatives of the employers and employees, parties to the agreement of May 14, 1918, that said agreement be modified to the extent that two additional members be added to the Board of Arbitration, New York Harbor Wage Adjustment, one to be appointed by the representatives of the railroads and one to be appointed by the representatives of the employees.

"Representing employers: E. A. Kelly, Clyde, Mallory, Ocean, and Old Dominion Steamship Cos.; Joseph H. Moran, New York Towboat Exchange; James M. MacKenzie, New York Boat Owners' Association; W. B. Pollock, New York Harbor Railroads; Charles L. O'Connor, M. & J. Tracy; Wm. Simmons, Lighterage Association, Port of New York.

"Representing employees: T. V. O'Connor, International Longshoremen's Association; William A. Maher, American Association of Masters, Mates, and Pilots, No. 1; T. L. Delahunty, Marine Engineers' Beneficial Association, No. 33; Alfred M. Sarrell, International Union of Steam and Operating Engineers, Local 379; Stephen J. Condon, Lighter Captains' Union; Wm. F. Fink, Secretary and Treasurer Harbor Boatmen; John Brennan, President Tidewater Boatmen's Union."

And whereas two additional members having been appointed to the board of arbitration in accordance with the agreement of June 20, 1918, and consideration having been given to all material evidence presented: Therefore be it

*Resolved*, That the following wage scale and working conditions be and hereby are established for harbor employees in the port of New York:

#### 1. TUGBOATS AND OTHER TOWING VESSELS AND STEAM LIGHTERS.

##### WAGE SCALE.

	Per month, with board.
Captains: The cylinder diameter of the engine is made the basis for the classification of rates of pay of captains:	
a. Single cylinder, 10 inches up to and including 15 inches.....	\$140
b. Single cylinder, over 15 inches up to and including 18 inches.....	150
c. Single cylinder, 20 inches and over, and compound or triple expansion engines.....	160
Engineers: The rates of pay of engineers are classified on the same basis as the rates of captains:	
a. Single cylinder, 10 inches up to and including 15 inches.....	130
b. Single cylinder, over 15 inches up to and including 18 inches.....	140
c. Single cylinder, 20 inches and over, and compound or triple expansion engines.....	150

Per month,  
with board.

Engineers, assistant: \$10 less per month than the engineers on the same class of boat.	
Engineers, night: When in charge and doing the same class of work as is required of day men, the pay shall be the same as day engineers.	
Licensed mates or pilots required to navigate the boat.....	\$140
Licensed mates on tugs doing transport work.....	115
Deckhands, first, two-crew boats.....	80
Deckhands, other than first, two-crew boats.....	75
Deckhands, where but one is employed during period of 24 hours.....	80
Oilers.....	80
Firemen, where two or more are employed during period of 24 hours.....	75
Firemen, where but one is employed during period of 24 hours.....	80
Cooks, on craft employing but one deckhand during period of 24 hours.....	77
Cooks, on craft employing more than one deckhand during period of 24 hours..	75
Floatmen.....	75

## WORKING CONDITIONS.

Twelve hours shall constitute a day's work.

Six days shall constitute a week's work, the day off to be determined by the employer.

One week's vacation with pay shall be allowed each employee who has been in the service of the company for a period of one year or more.

If board is not furnished by the company, 75 cents per day in lieu thereof for six days per week, or seven days if the employee does not receive his day off, shall be allowed each employee.

Time in excess of 12 hours per day or 6 days per week shall be compensated at the rate of time and one-half.

Car fare is to be paid by employers when boats are to change crews at other than a designated point.

## 2. FERRYBOATS.

## WAGE SCALE.

	Per month,
Captains or pilots.....	\$175
Wheelmen.....	95
Deckhands.....	85
Engineers.....	165
Oilers required to have United States marine engineer's license.....	100
Oilers not required to have United States marine engineer's license.....	95
Fireman.....	95

## WORKING CONDITIONS.

Six days shall constitute a week's work, the day off to be determined by the employer.

One full week's vacation with pay shall be granted to each of the above-named employees who has been in the employ of the company for a period of one year or more.

## 3. LIGHTERS, COVERED BARGES, AND HOISTERS.

## WAGE SCALE.

Captains:	Per day.
On covered barges and barges or lighters with hand-hoisting gear.....	\$3.50
On barges or lighters with steam or gasoline hoisting gear having a hoisting capacity of less than 15 tons.....	3.75
On barges or lighters with steam or gasoline hoisting gear having a hoisting capacity of 15 tons or over.....	4.00
Stationary hoisting engineers:	
On lighters and barges equipped with a steam hoist of less than 15 tons' capacity.....	4.25
On lighters and barges equipped with a steam hoist of 15 tons or over capacity.....	4.50
On steam hoisters.....	5.00

## WORKING CONDITIONS.

Ten hours per day shall constitute a day's work.

Six days per week shall constitute a week's work.

Work in connection with cargo in excess of 10 hours per day or 6 days per week shall be compensated at the rate of time and one-half.

For being required to be on his boat at night for watching or towing, the captain shall receive \$1.50 per night.

All car fares in excess of 10 cents per day to be paid by the employers to men living within the metropolitan district, and all car fares to be paid by the employers when the men are on company business.

## 4. SCOWS AND DUMPERS.

	Per month.
Captains.....	\$85
and \$1 per night when required to be active on their boats in connection with the loading or discharging cargo after 6 p. m.	

## 5. COAL BOATS AND GRAIN BOATS.

	Per month.
Captains.....	\$90
with no additional compensation for night loading or discharging of cargo.	

## 6. GENERAL RULES AND REGULATIONS.

1. No employee shall leave the service of the company without giving the company 48 hours' notice. Violation of this rule shall entitle the employer to withhold two days' pay.

2. No employee shall be discharged by the company, except for cause, without receiving 48 hours' notice. Violation of this rule shall entitle the employee to two additional days' pay.

3. Nothing in this award shall be construed to increase the hours of service or to decrease the pay or allowance in effect on or prior to June 1, 1918.

4. This award shall be effective as of June 1, 1918, and shall be in full force and effect until May 31, 1919, unless in the judgment of the board conditions warrant a change prior to the date thus fixed for expiration.

Maj. W. B. BAKER, U. S. A., <i>Chairman,</i>	FREDERICK A. BISHOP,
<i>Representing United States Shipping Board.</i>	W. B. POLLOCK,
G. R. PUTNAM, <i>Department of Commerce.</i>	<i>Representing Employers.</i>
B. M. SQUIRES, <i>Department of Labor.</i>	T. V. O'CONNOR,
	T. L. DELAHUNTY,
	<i>Representing Employees.</i>



## LABOR AND THE WAR.

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### AWARDS AND FINDINGS OF THE NATIONAL WAR LABOR BOARD.

As the work of the National War Labor Board progresses the number of its awards and decisions will presumably steadily increase. The MONTHLY LABOR REVIEW has published in full some of the awards and other proceedings of the board. In the August number are printed the award in the news print paper industry (pp. 152, 153), and the award covering certain machine shops at Waynesboro, Pa., at East Cambridge, Mass., and at Buffalo, N. Y. (pp. 72-75). In this number of the REVIEW there appears in full the award adjusting the strike of the Bethlehem Steel Co. machinists and electrical workers. There are also summaries of the awards granting increases in wages to the employees of 22 street railway companies and of the award affecting the employees of the Smith & Wesson Arms Co. (Springfield Mass.), in which the practice of making individual contracts is ordered discontinued and the right of workers and employers to "bargain collectively through chosen representatives" is recognized in accordance with the fundamental principles upon which the board was organized. A number of other awards are also mentioned, affecting employees of the General Electric Co. (Schenectady, N. Y., and Pittsfield, Mass.), the St. Joseph Lead Co. (Herculaneum, Mo.), the Sloss-Sheffield Steel & Iron Co., the Suwanee Iron Co., and the Sheffield Iron Corporation (Birmingham, Ala.). All the awards appearing in this number of the LABOR REVIEW were made on July 31, except the Smith & Wesson Arms Co. award, which was made on August 21.

### ADJUSTMENT OF STRIKE OF BETHLEHEM STEEL CO. MACHINISTS AND ELECTRICAL WORKERS.

The decision in the controversy between the Bethlehem Steel Co. and its machinists and electrical workers who had been on strike but who had returned to work under existing conditions, pending the adjustment of the matter by the board, was rendered on July 31. The dispute arose on or about April 15, 1918, involving conditions of employment, the main cause of dissatisfaction appearing to be the bonus system which the company had put into operation. The full text of the award, which affects directly and indirectly approximately 28,000 employees, is as follows:

The case of the Machinists and Electrical Workers v. Bethlehem Steel Co. is of unquestionable importance from the standpoint of the war. It appears beyond doubt

that the dissatisfaction among the employees of the company has had and is having a seriously detrimental effect upon the production of war materials absolutely necessary to the success of the American Expeditionary Forces. This was clearly developed in the testimony of the officials of the Ordnance Department.

The main cause of the dissatisfaction is a bonus system so complicated and difficult to understand that almost one-half of the time of the hearings was consumed in efforts to secure a clear idea of the system. The absence of any method of collective bargaining between the management and the employees is another serious cause of unrest, as is also the lack of a basic guaranteed minimum wage rate.

After having carefully reviewed all the evidence in the case, the board makes the following findings:

#### 1. PIECE RATES, BONUS AND BASIC HOURLY RATES—MACHINE SHOPS.

(a) The bonus system now in operation should be entirely revised or eliminated; piecework rates should be revised also; and a designated, guaranteed minimum hourly wage rate should be established in conformity with such of the scales now being applied by the War or Navy Department as most nearly fits the conditions in this particular case.

(b) Any necessary revision of piecework rates shall be made by an expert in cooperation with the Ordnance Department, the plant management and a committee from the shops, such expert to be selected by the National War Labor Board and with the approval of the Secretary of War.

(c) The piece rates thus established shall not be reduced during the period of the War.

#### 2. OVERTIME.

Daily overtime should be compensated at the rate of time and a half and Sundays and holidays at double time. In the fixing of piece rates provision should be made for overtime payment such as is now made in the case of time workers. The definition of what days constitute holidays and the division of the weekly work periods can, in the opinion of the board, be settled best by conference between committees hereinafter provided and the management of the plant.

#### 3. COMMITTEES.

The right of employees to bargain collectively is recognized by the National War Labor Board; therefore the employees of the Bethlehem plant should be guaranteed this right. The workers at the Bethlehem plant should use the same method of electing committees as is provided in the award of the National War Labor Board for the workers of the General Electric Co. at Pittsfield.<sup>1</sup>

#### 4. EMPLOYMENT OF WOMEN.

On work ordinarily performed by men, women must be allowed equal pay for equal work and must not be allotted tasks disproportionate to their strength.

#### 5. MILITARY EXEMPTION.

The evidence relative to the complaints of the workers that foremen and other subordinate officials of the plant have made improper use of the Selective Draft Act shall be referred to the War Department for such action as may be warranted by the facts and the law.

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<sup>1</sup> See p. 35 for the text of this provision.

## 6. ELECTRICAL WORKERS.

The board finds in the case of the electrical workers that the following rates should be established:

First class, 67½ cents per hour;

Second class, 62½ cents per hour;

Helpers, 40 cents per hour.

Overtime provisions should be the same as hereinbefore specified.

## 7. OTHER DEPARTMENTS.

Wages and working conditions of other departments and crafts shall be considered and adjusted by the committees provided for in paragraph *b*, section 1.

## 8. LOCAL BOARD.

A local board of mediation and conciliation, consisting of six members, shall be established, three members of which shall be selected by the company and three by the employees, for the purpose of bringing about agreements on disputed issues not covered by these findings. In the event of the local board failing to bring about an agreement, the points at issue shall be referred to the National War Labor Board. The members of the local board shall be compensated for their services by the parties whom they represent. This board shall be presided over by a chairman who shall be selected by and represent the Secretary of War.

## 9. NO REDUCTIONS.

The revision of wages or earnings provided for in this award shall in no case operate to reduce the wages or earnings of any employee.

## 10. DISCRIMINATION.

The examiner hereinafter provided for shall investigate the charges of discrimination, and shall report his conclusions with recommendation in each unsettled case to the National War Labor Board and to the company.

## 11. EXAMINER.

The National War Labor Board shall detail an examiner to supervise the application of these findings. The examiner shall hear any differences arising between the parties in respect to these findings, and shall promptly render his decision, from which an appeal may be taken by either party to the National War Labor Board. Pending the appeal the decision of the examiner shall be enforced.

## 12. DURATION.

These findings are to take effect August 1, 1918, and shall be effective for the duration of the war, except that either party may reopen the case before the board at periods of six months' interval for such adjustments as changed conditions may render necessary.

The board desires to point out to both parties to this controversy that the questions raised and for which the board has endeavored to find solution have largely to do with matters which will require a reasonable time to satisfactorily adjust, and that in view of the vital importance of the output of the Bethlehem Steel Co. both sides should address themselves with patience and good spirit to finding fair and reasonable adjustments of the matters to which the board here directs attention.



In the statement made public under the authority of the National War Labor Board with regard to the findings here quoted in full, it was made to appear that the basic eight-hour day had been applied throughout the company's plant at Bethlehem. The board states that in this respect the statement was in error, since the basic eight-hour day was not included in the findings, and continues:

The basic eight-hour day does now and has applied in the machine shops at Bethlehem. It does not apply, under the War Department interpretation of the eight-hour law, to those branches of the Bethlehem plant engaged upon the production of steel billets, rolled steel, or other unfinished products made for the open market.

In these branches at Bethlehem the present workday remains unchanged under the findings of the board, the only action of the board with regard to the basic day being to declare that overtime beyond the usual workday should be compensated for at the rate of time and half time, and that work on Sundays and holidays should be paid for at the rate of double time; and that in the fixing of piece rates provisions be made for overtime payment as now provided in the case of time workers.

#### INCREASE IN WAGES OF STREET RAILWAY EMPLOYEES.

On August 1, 1918, the National War Labor Board announced awards rendered for the period of the war in 22 street railway controversies in 17 cities, leaving 16 controversies to be adjusted. These cases, which were before the board for some weeks, were handled by a section composed of the joint chairmen, Messrs. Taft and Walsh. Questions of wages, hours, and the right to organize were involved. The awards affect approximately 50,000 men employed by the following corporations: Chicago Surface Lines and Chicago Elevated Railways; Chicago & West Towns Railway Co.; Evanston Railway Co., Evanston, Ill.; Cleveland Railway Co.; Cleveland & Eastern Traction Co.; Cleveland, Painesville & Eastern Railway Co.; Cleveland, Painesville & Ashtabula Railway Co.; Cleveland, Southwestern & Columbus Railway Co.; Columbus Railway, Power & Light Co.; Detroit United Railway; Galesburg Railway, Lighting & Power Co., Galesburg, Ill.; Omaha & Council Bluffs Street Railway Co.; New Orleans Railway & Light Co.; Joplin (Mo.) & Pittsburg (Kans.) Railway Co.; United Traction Co., Albany, N. Y.; Schenectady Railway Co.; New York State Railways, Rochester, N. Y.; International Railway Co., Buffalo, N. Y.; Public Service Railway Co. of New Jersey, Newark, N. J.; Pennsylvania-New Jersey Railway Co., Trenton, N. J.; Scranton Railway Co., Scranton, Pa.; East St. Louis Lines, East St. Louis, Ill.

The principal features of the awards are given in a statement issued by the War Labor Board as follows:

Substantial wage increases are granted in every case. The wage rates fixed vary, however, and no flat minimum or maximum to be applied generally is established. In a general way, nevertheless, it may be said that the wages for motormen and conductors in the larger cities are fixed at from 48 to 50½ cents an hour. The rate for apprentice motormen and conductors in the larger cities is fixed at 43 cents, as a

general rule. In the smaller cities the pay for motormen and conductors is increased to 45 cents and for apprentice motormen and conductors to 41 cents an hour. In the cases of small interurban roads, where the employees as a general rule live in rural communities, the wage for motormen and conductors is fixed at 42 cents and for apprentices at 38 cents an hour.

The arbitrators took into consideration local conditions and such other facts as were peculiar to individual cases in the fixation of the wage rates. In a great many of the cases trackmen, pitmen, pitmen's helpers, controllers, oilers, etc., also demanded increased wages and improved working conditions. Their wages were increased in the same ratio as the highest increase to conductors and motormen. Even this increase, it was found by the arbitrators, did not provide these men with a wage deemed sufficient under the living wage principle governing the National War Labor Board and the arbitrators, therefore, fixed 42 cents an hour as a general minimum for these men. In all cases where motormen and conductors are compelled to work in excess of the period of their regular runs they are to be paid on the basis of time and half time for the excess, thus placing them on the same plane with skilled mechanics in Government industries. This award marks a new departure in the adjudication of street railway disputes in that it provides for the penalization of companies for extending the spread of hours in which men perform their day's work beyond the number of 13 hours. Motormen and conductors in a majority of the cities are compelled to break up their working time during the day on account of the rush hours. Wherever this split of time spreads beyond 13 hours the companies are penalized by being compelled to pay all the way from one-third time to double time to the workers according to the spread. This, it is believed, will have a tendency to diminish the spread of the work hours of the men.

The award arbitrarily fixes the limit of apprenticeship on the cars at one year. This accelerates the method of graduating the men from one wage classification into another. Thus, instead of compelling men to work a full year before they may expect a wage increase and two years before they may expect a second increase, the award fixes three months as the first period upon the completion of which men shall receive their first increase and the second increase is made payable nine months after receipt of the first one. Heretofore the wages have been raised in small amounts every year, covering fixed periods, so that in several instances which have come under the observation of the arbitrators it took 10 years for the motormen or conductor to get the highest wage rate paid by the company.

While it is difficult to state definitely the exact percentage of increase granted in the awards it may be said that in the larger cities the increase is from 35 to 40 per cent. The increase in Detroit, for instance, approximates 40 per cent; in New Orleans, 50 per cent. In the smaller cities, such as Galesburg, Ill., it runs as high as 65 per cent on account of the extremely low pay received by the men up to this time. In New Orleans the wage was fixed lower than in other larger cities, the principal reason being the climatic conditions which made possible the omission of the items of fuel and heavy clothing from the cost of living budgets.

A flat wage of 50 cents an hour is fixed for all regular motormen on the Chicago elevated lines, regardless of the duration of their employment. In virtually all of the cases the awards are made retroactive, the earliest date being April 1, 1918. Ample time is allowed the companies for the payment of the back pay. Provision is made in every instance for the reopening of the case every six months for adjustments which may be rendered necessary by changed conditions, such as the cost of living, etc. Furthermore, the National War Labor Board retains jurisdiction in each case to the extent of assigning an administrator to interpret and enforce the award, the right of appeal from the administrators' decision being reserved to the parties. The award remains in full force pending decisions upon such appeals, however.

In cases where the right to organize has been an issue the arbitrators applied the War Labor Board principles, protecting workers in the exercise of their right to join trade-unions without fear of molestation by the employer. Where individual employment contracts have been exacted by employing companies they are ordered eliminated for the period of the war on the ground that they constitute an interference with the free right of men to organize. Such an order was made in the case of the Omaha & Council Bluffs Street Railway Co. The administrators were called upon to render a decision with respect to the right of organized operatives to wear the button of their local union in the case of the Columbus Railway, Power & Light Co. This question has frequently become an issue between street railway companies and their employees. In the Columbus award the arbitrators declared their inability to "see any objection under ordinary circumstances to the workers wearing a modest button of the ordinary size and design, worn presumably not for any objectionable purposes, but as men wear Red Cross or fraternal buttons." In the same case four men named as having been discharged for union activities, were ordered reinstated in their former positions and ratings with full pay for lost time.

The awards follow hearings conducted by Messrs. Taft and Walsh in the great population centers of the country over a period of two months as well as investigations by the staff of the War Labor Board and consideration by the joint chairmen of a great mass of statistics on the subject of the cost of living and technical data submitted by experts retained both by the companies involved and the workers' organizations.

With respect to the relation of the wage increases granted to the financial conditions of the companies concerned, the arbitrators made the following statement and recommendation in each case:

"This increase in wages will add substantially to the operating cost of the company and will require a reconsideration by the proper regulating authority of the fares which the company is allowed by law to collect from its passengers.

"We make part of this award the words we have used in the award in the Cleveland case:

" 'We have recommended to the President that special congressional legislation be enacted to enable some executive agency of the Federal Government to consider the very perilous financial condition of this and other electric street railways of the country, and raise fares in each case in which the circumstances require it. We believe it to be a war necessity justifying Federal interference. Should this be deemed unwise, however, we urge upon the local authorities and the people of the locality the pressing need for such an increase adequate to meet the added cost of operation.

" 'This is not a question turning on the history of the relations between the local street railways and the municipalities in which they operate. The just claim for an increase in fares does not rest upon any right to a dividend upon capital long invested in the enterprise.

" 'The increase in fare must be given because of the immediate pressure for money receipts now to keep the street railroads running so that they may meet the local and national demand for their service. Overcapitalization, corrupt methods, exorbitant dividends in the past are not relevant to the question of policy in the present exigency. In justice the public should pay an adequate war compensation for a service which can not be rendered except for war prices. The credit of these companies in floating bonds is gone. Their ability to borrow on short notes is most limited. In the face of added expenses which this and other awards of needed and fair compensation to their employees will involve, such credit will completely disappear. Bankruptcy, receiverships, and demoralization, with failure of service, must be the result. Hence our urgent recommendation on this head.' "



In the cases of the Chicago companies, the board made the following supplemental statement on the question of the rates of fare:

"The award in this case is an increase in maximum wages from 39 to 48 cents an hour. It was required by an increase in the cost of living of the street-car employees and is not more than fair. It does entail on the company, however, a heavy increase in its operating expenses; the Chicago companies are being operated under a partnership arrangement with the city, so that the city shares in the net income, after fixed charges and operating expenses are paid in the ratio of 55 per cent for the city and 45 per cent for the stockholders. The showing made by the company to us clearly discloses that in order to enable it to render adequate service the fares which it is permitted to charge should be substantially increased."

The arbitrators then make part of their award the language used in the Cleveland case, as quoted in the foregoing paragraph.

In the case of the International Railway Co., of Buffalo, N. Y., the increases granted were conditioned upon the continuance in force of the rate of fare recently granted by the city council of Buffalo. Should the city council revoke this rate, then the wage increases shall automatically terminate.

#### AWARD IN CONTROVERSY BETWEEN SMITH & WESSON ARMS CO. AND ITS EMPLOYEES.

Under the award of the board in the controversy between the Smith & Wesson Arms Co. and its employees, announced on August 21, the practice of the company in taking restrictive personal contracts, even if lawful when made, is stated to be contrary to the principles of the National War Labor Board, which announces that "the practice of taking such contracts should be discontinued for the period of the war." Relative to the charges of discrimination against employees for joining labor unions and to the discharge of certain employees as shown in the record, the board calls attention to the fact that the fundamental principles upon which it was organized recognize the right of workers and employers to organize and "to bargain collectively through chosen representatives," and also deny employers the right to discharge workers for membership in trade-unions and restrain workers from using coercive measures of any kind either to induce persons to join their organizations or to induce employers to bargain or deal therewith. In accordance with these principles the board recommends that discharged employees be restored to their former positions and paid for all time lost by them on account of their discharge. Under the principles mentioned, giving workers the right to bargain collectively through chosen representatives, the board makes the same recommendation concerning the method of electing committees and their duties as is provided for in the award affecting the workers of the General Electric Co. at Pittsfield, Mass. (see p. 35).

All matters in dispute as to wages and other conditions of employment are to be adjusted by the committees provided for, and in case of disagreement reference is to be made to the National War Labor Board. Proper interpretation of the award is left to an examiner,

appointed by the secretary of the board, "who shall hear any differences arising in respect to the award between the parties and promptly render his decision, from which an appeal may be taken by either party to the section making this award. Pending such appeal the decision of the examiner is to be binding."

#### OTHER AWARDS BY THE NATIONAL WAR LABOR BOARD.

Awards affecting the General Electric Co. and its employees at its Schenectady (N. Y.) and Pittsfield (Mass.) works; the St. Joseph Lead Co., Herculaneum (Mo.); and the Sloss-Sheffield Steel & Iron Co., the Suwanee Iron Co., and the Sheffield Iron Corporation, the last three named located in the Birmingham (Ala.) district and made parties to the same award, were published by the National War Labor Board on July 31. The General Electric Co. award affects directly nearly 6,000 and indirectly about 12,000 employees at its Schenectady (N. Y.) works and 7,000 employees at the Pittsfield (Mass.) works. The St. Joseph Lead Co. award affects directly about 900 employees and indirectly some 12,000 to 15,000 workmen in the district. The Sloss-Sheffield Steel & Iron Co. award affects directly about 500 organized employees and indirectly about 1,000 unorganized workmen. No definite statement can be made as to the number employed by the other companies covered in the Birmingham (Ala.) iron and steel district.

#### General Electric Co. Awards.

Separate awards were made for the Schenectady (N. Y.) and for the Pittsfield (Mass.) works of this company. At the former shops no change is made in existing hours and a horizontal increase in wages of 10 per cent becomes effective for both time and piece workers, except that steam fitters, carpenters, narrow and wide gauge men, painters, metal polishers, and pattern makers are given an increase of 15 per cent. A night shift bonus of 5 per cent is established, that is, men on night shifts to receive that much higher compensation than those employed on day shifts. Wages of women are increased 20 per cent and a minimum of \$15 per week is established. In the case of male employees 21 years of age or over, a minimum of 42 cents an hour is fixed.

The board makes provision for enforcement through an examiner and provides for revision at intervals of six months upon proper petition and complaint. The award is effective as respects piecework from May 3, and as respects daywork from May 6 of this year.

At the Pittsfield (Mass.) works of the company piecework rates are increased 20 per cent and a minimum hourly rate of 42 cents established for male employees and 30 cents for women employees. A

nightwork bonus of 5 per cent is fixed. Time and a half is granted for overtime, but no statement is made as to when overtime shall commence. Individual contracts are prohibited, and provision is made for the election by the workers of their representative department committees to present grievances and to mediate with the company. The text of this portion of the award is as follows:

The election by the workers of their representative department committees to present grievances and mediate with the company shall be held, during the life of this award, in some convenient public building in the neighborhood of the plant, to be selected by the examiner of this board assigned to supervise the execution of this award, or, in case of his absence, by some impartial person, a resident of Pittsfield, to be selected by such examiner. Such examiner, or his substitute, shall preside over the first and all subsequent elections during the life of this award, and have the power to make the proper regulations to secure absolute fairness. In the elections the examiner shall provide, wherever practicable, for the minority representation by limiting the right of each voter to a vote for less than the total number of the committee to be selected. Elections shall be held annually.

The duties of the department committees shall be confined to the adjustment of disputes which the shop foremen and the division superintendents and the employees have been unable to adjust. The department committees shall meet annually and shall select from among their number three employees, who shall be known as the committee on appeals. This committee shall meet with the management for the purpose of adjusting disputes which the department committees have failed to adjust.

The award is retroactive to May 1, 1918.

**St. Joseph Lead Co., Herculanum, Mo.**

The St. Joseph Lead Co. award grants the employees of this lead mining company time and a half for the first two hours over the regular shift of eight hours and double time thereafter on ordinary days, as well as on Sundays and holidays; this provision affects common labor as well as skilled and semiskilled labor. A minimum rate of \$4 per day, and certain wage increases are granted so that wages now range from \$4 to \$7.75 per day. Recognition of the union by the company is denied the employees, but the latter are free to organize their committees of grievances, and the company is to deal with these in the future.

**Awards in the Birmingham Iron and Steel District.**

An award in this region was originally made for the Sloss-Sheffield Steel & Iron Co., and subsequently a similar award was made applicable to the employees of the Suwanee Iron Co. and the Sheffield Iron Corporation. All of these companies are engaged in iron mining and steel manufacture. The award declares that the customary medical and school fees deducted from the wages of the employees by the companies in this district are just and reasonable under the circumstances existing in that region. The deduction of insurance premium from the wages of employees was also a subject of com-



plaint by the employees, but as this deduction was found to be voluntary no action was taken in the matter by the board. The board declares permissible the issuance of permits whenever a miner wished to transfer his employment from one mine to another of the same company, but the board cautions against the use of such permits between the mines of different companies as leading to a possible blacklist. The discount of advances of wages made to employees, found in some cases to be as high as 20 per cent of the wages advanced, must cease hereafter. A minimum rate of 38 cents an hour is fixed for common labor for an eight-hour day, with time and a quarter for the first two hours beyond the eight hours, and time and a half thereafter on ordinary days and double time for Sundays and holidays. The award is made retroactive from April 17, 1918. The rates per hour for different occupations for the first eight hours of work each day are as follows:

*Hourly rate of wages for the first eight hours of daily work.*

	Cents.		Cents.
Common labor.....	38	Pumper central station.....	45
Trammers and dumpers.....	40	Railroad car tenders.....	40
Track men (foremen).....	42	Common labor (outside).....	38
Track men (helpers).....	40	Common labor (foremen).....	42
Track men (labor).....	40	Machinists' helpers.....	42
Car repair men.....	44	Lathe man (machine shop).....	60
Washer foremen.....	44	Machine shop helpers.....	40
Washer labor.....	40	Machinists at washers.....	50
Steam shovel engineers.....	50	Blacksmiths at machine shop.....	55
Steam shovel cranemen.....	40	Blacksmiths' washers.....	45
Steam shovel firemen.....	40	Blacksmiths' helpers.....	38
Steam shovel pitmen.....	40	Switchmen.....	38
Dinkey engineers.....	40	Signal men.....	40
Dinkey firemen.....	44	Night watchmen.....	40
Carpenters.....	48	Teamsters.....	40
Carpenter foremen.....	55	Stablemen.....	( <sup>1</sup> )
Slush pond labor.....	40	Talleymen.....	( <sup>2</sup> )
Stationary boiler firemen.....	44		

**EMPLOYERS AND WORKERS URGED TO ADOPT PRINCIPLES OF NATIONAL WAR LABOR BOARD.**

By the adoption of the following resolution on July 31, 1918, the National War Labor Board called upon all employers and workers to compose their differences by the application of the principles governing the board as laid down in the President's proclamation of April 8, 1918:<sup>3</sup>

*Resolved,* That the National War Labor Board deems it an appropriate time to invite the attention of employers and workers alike to the wisdom of composing their differ-

<sup>1</sup>\$85 per month.

<sup>2</sup>\$90 to \$95 per month

<sup>3</sup>This proclamation is published in full in the MONTHLY REVIEW for May, 1918, pp. 54-57.

ences in accord with the principles governing the National War Labor Board, which were approved and promulgated by the President in his proclamation of April 8, 1918;

That this war is not only a war of arms, but also a war of workshops; a competition in the quantitative production and distribution of munitions and war supplies, a contest in industrial resourcefulness and energy;

That the period of the war is not a normal period of industrial expansion from which the employer should expect unusual profits or the employees abnormal wages; that it is an interregnum in which industry is pursued only for common cause and common ends;

That capital should have only such reasonable returns as will assure its use for the world's and Nation's cause, while the physical well-being of labor and its physical and mental effectiveness in a comfort reasonable in view of the exigencies of the war should likewise be assured;

That this board should be careful in its conclusions not to make orders in this interregnum, based on approved views of progress in normal times, which, under war conditions, might seriously impair the present economic structure of our country;

That the declaration of our principles as to the living wage and an established minimum should be construed in the light of these considerations;

That for the present the board or its sections should consider and decide each case involving these principles on its particular facts and reserve any definite rule of decision until its judgments have been sufficiently numerous and their operation sufficiently clear to make generalization safe.

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#### APPOINTMENT AND FUNCTION OF THE DIRECTOR OF NEGRO ECONOMICS, UNITED STATES DEPARTMENT OF LABOR.

With the increasing problems of labor shortage the questions arising that have directly and manifestly affected Negro wage-earners have been coming prominently to the attention of the Department of Labor. Particularly has this been true following the large migration of Negroes from the South to northern industrial centers during 1916 and 1917. It has been estimated that between 500,000 and 700,000 Negroes have moved North. Many requests came to the department to study the question. As a result an extensive investigation in five Southern States and in selected Northern districts was made and will soon be published.

Last spring a number of white and colored citizens representing organizations dealing largely with Negroes and employers of Negroes presented a petition to the Secretary and his advisory council, asking that the department appoint an adviser from within the Negro group, for matters affecting Negro wage earners. After careful consideration the Secretary created the position of adviser with the title, "Director of Negro Economics." On May 1 he appointed to this position Dr. George E. Haynes, professor of sociology and economics at Fisk University, Nashville, Tenn., who had had large experience in promoting industrial betterment activities among Negroes, North and South. He had been especially successful in helping to develop cooperative efforts of white and col-

ored people for the betterment of Negro wage earners in New York, Nashville, Memphis, Atlanta, Savannah, and other northern and southern commercial and industrial centers. He had also been in close touch with the rural school and agricultural improvement among Negroes in the Southern States.

The purpose of the department in creating this position is to furnish, for the several bureaus and divisions dealing with Negro wage earners, advice and judgment in all matters affecting Negroes in the work they undertake. As the war work of the department has grown and spread over the country, the department has found it desirable to secure the counsel and cooperation of representative white and colored citizens in the States and localities where any considerable number of Negroes reside. The Director of Negro Economics has been the medium through which this purpose is being carried out. This mode of carrying out the purpose recognizes the principle that adjustment of problems affecting Negroes needs to be made between the local employers and employees, and that the department can best serve the cause by helping to get together representative white and colored citizens in each State and locality to deal in a cooperative spirit with local situations. The employed staff can thus best adapt the national plans, policies, and vision to meet local conditions.

Already, effective conferences and interviews of representative white and colored citizens have been held in Virginia, North Carolina, Kentucky, Ohio, Mississippi, Alabama, Georgia, and Florida. Following these conferences, State Negro workers' advisory committees are being formed with representative white and colored citizens serving on them. These committees will cooperate with the staff members of the department, with employers, and with Negro laborers in increasing the production in agriculture and industry, for winning the war, and in promoting greater unity and efficiency for such production. Following the formation of State committees, county and community committees will be formed. Both white and colored citizens in the States where committees are being formed are responding with enthusiasm to the work. Calls for arrangements for similar conferences are coming in from other States and plans are under way in South Carolina, Illinois, and Pennsylvania.

In some States where committees are already appointed, programs of mass meetings, visitation of the home and places of work to stimulate wage earners have been undertaken. These steps are being taken to increase the morale, regularity, and efficiency of Negro wage earners, thus improving their opportunities of employment and their general condition.



## EMPLOYMENT OF PRISONERS IN THE ATLANTA PENITENTIARY.

The pressure of production for the war doubtless was influential in securing the enactment of a law by the present Congress (Public No. 194, approved July 10, 1918) looking toward the extension of the use of the labor of persons detained in the United States Penitentiary at Atlanta, Ga. The fear of the results of the competition of prison labor with ordinary industry has operated to prevent in large measure any provision for the productive employment of convicts, whether in State or Federal institutions. The inhumanity of enforced idleness and the unprofitableness of maintaining able-bodied persons in a continuing condition of unemployment have led to the adoption of expedients to secure the employment of convicts in a variety of ways, but the Federal Government had gone but a little way in this direction before the enactment of the law in question. Thus the act of 1891 directed the employment of convicts "exclusively in the manufacture of such supplies for the Government as can be manufactured without the use of machinery." In 1895 an act of Congress provided that convicts in the United States Penitentiary at Leavenworth, Kans., should be employed "only in the manufacture of articles and the production of supplies for said penitentiary, and in the manufacture of supplies for the Government," no reference being made to equipment. In 1896 workshops were provided for, but again no provision appears as to the fitting up of the shops for production, while the act of March 3, 1901, relating to the penitentiary at Atlanta authorizes the employment of inmates of that institution "in the manufacture of articles and the production of supplies for said penitentiary; in the manufacture of supplies for the Government that can be manufactured without the use of machinery; in the construction, extension, and repairs of buildings and inclosures of the prison, and in making necessary materials therefor; and in the cultivation and care of the prison grounds and farm."

It is evident from the retention of the prohibition against the use of machinery that the idea was still not one of efficiency, but of the restriction of competition, as it appeared in the act of 1891. In 1916, however, a commission was appointed, under congressional action, to report to Congress "detailed estimates and plans for equipping the United States penitentiaries for the manufacture, by the prisoners, of various articles used by the Government." The personnel of this commission was fixed by the act and is suggestive of the ideas of Congress as to the scope of the activities that might be reported upon. It consisted of the Chief of Ordnance of the Army, the same officer of the Navy, the superintendent of prisons of the Department of Justice, and the purchasing agent of the Post Office

Department. The report was also to indicate what articles it was thought desirable to have manufactured, probable costs, present purchase costs, etc.

A report was directed to be made not later than the opening of the session of Congress in December, 1916. It remained for the Sixty-fifth Congress to take action on this report, however, a bill on the subject being submitted early in the first session and becoming a law on July 10, 1918, as already stated. This law applies only to the penitentiary at Atlanta and authorizes the equipment of "a factory or factories for the manufacture of cotton fabrics to supply the requirements of the War and Navy Departments, the Shipping Corporation, cotton duck suitable for tents and other Army purposes and canvas for mail sacks and for the manufacture of mail sacks and other similar mail-carrying equipment for the use of the United States Government." The articles manufactured are to be sold only to the Government of the United States. The sum of \$650,000 is appropriated for the purchase of machinery and other equipment; \$150,000 is also appropriated as a working capital, from which wages may be paid to prisoners employed under the provisions of the act, or the earnings may go to the dependents of such prisoners. The same act provides for the purchase of additional lands for farm purposes, the products, including live stock, to be utilized at the penitentiary or sold to the Government for use by the Army and Navy.

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#### FINAL REPORT OF THE BRITISH HEALTH OF MUNITION WORKERS COMMITTEE.

In April, 1918, the British Ministry of Munitions issued the final report of the Health of Munion Workers Committee,<sup>1</sup> which was appointed in September, 1915, by Hon. Lloyd George, then Minister of Munitions, "to consider and advise on questions of industrial fatigue, hours of labor, and other matters affecting the personal health and physical efficiency of workers in munition factories and workshops."

In view of the urgency of many of the problems involved by the terms of reference the committee submitted its views and recommendations in regard to particular matters in 21 separate memoranda, which have been noted from time to time in the pages of the MONTHLY REVIEW, and most of which have been published in full by this bureau in its bulletins, Nos. 221, 222, 223, and 230. Now that the final report of the committee has been issued it may be well to present a list of the memoranda together with the issues of the MONTHLY

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<sup>1</sup> Great Britain, Ministry of Munitions. Health of Munion Workers Committee. Final report. Industrial Health and Efficiency. [Cd. 9035.] London, 1918. 182 pp. Illustrated.

REVIEW or bulletins of this bureau in which they have been summarized or printed in full.

MEMORANDA PUBLISHED BY HEALTH OF MUNITION WORKERS COMMITTEE,  
GREAT BRITAIN.

No. of memorandum.	Title of memorandum.	Date and pages of MONTHLY REVIEW containing summary.	No. of bulletin in which printed in full.
1	Sunday labor (Cd. 8132).....	May, 1916, pp. 66, 67.....	221
2	Welfare supervision (Cd. 8151).....	May, 1916, pp. 68, 69.....	222
3	Industrial canteens (Cd. 8133).....	May, 1916, pp. 69, 70.....	222
4	Employment of women (Cd. 8185).....	June, 1916, pp. 74-76.....	223
5	Hours of work (Cd. 8186).....	June, 1916, pp. 77-79.....	221
6	Canteen construction and equipment (Appendix to No. 3) (Cd. 8199).....	June, 1916, p. 91.....	222
7	Industrial fatigue and its causes (Cd. 8213).....	June, 1916, pp. 79-81.....	221
8	Special industrial diseases (Cd. 8214).....	June, 1916, pp. 83-88.....	221
9	Ventilation and lighting of munition factories and workshops (Cd. 8215).....	June, 1916, pp. 81-83.....	221
10	Sickness and injury (Cd. 8216).....	June, 1916, pp. 88-90.....	221
11	Investigation of workers' food and suggestions as to dietary (second appendix to No. 3) (Cd. 8370).....	January, 1917, pp. 56, 57.....	222
12	Statistical information concerning output in relation to hours of work (Cd. 8344).....	December, 1916, pp. 105-119 <sup>1</sup> ..	221
13	Juvenile employment (Cd. 8352).....	December, 1916, pp. 92-97.....	223
14	Washing facilities and baths (Cd. 8337).....	January, 1917, pp. 150, 151.....	222
15	The effect of industrial conditions upon eyesight (Cd. 8409).....	April, 1917, pp. 538-540.....	221
16	Medical certificates for munition workers (Cd. 8522).....	.....	230
17	Health and welfare of munition workers outside the factory.....	August, 1917, pp. 91, 92.....	230
18	Further statistical information concerning output in relation to hours of work, with special reference to the influence of Sunday labor (Cd. 8628).....	November, 1917, pp. 61, 62.....	.....
19	Investigations of workers' food and suggestions as to dietary (second appendix to No. 3), revised edition (Cd. 8798).....	.....	.....
20	Weekly hours of employment (supplementary to memorandum No. 5) (Cd. 8801).....	February, 1918, pp. 82-87 <sup>1</sup> .....	.....
21	Investigation of the factors concerned in the causation of industrial accidents (Cd. 9046).....	July, 1918, pp. 161-164.....	.....
	Industrial efficiency and fatigue, interim report (Cd. 8511).....	July, 1917, pp. 14-19.....	230
	Handbook on health of the munition worker.....	April, 1918, p. 311.....	.....
	Industrial health and efficiency, final report of the committee (Cd. 9065).....	September, 1918, pp. 40-53.....	<sup>2</sup> 249

<sup>1</sup>Published in full.

<sup>2</sup>In press.

In the final report the committee states that all recommendations contained in the memoranda "have been generally accepted as reasonable and have been widely adopted." This report gives a concise survey of the nature and development of all the various problems covered by the memoranda. By bringing together into one report all these matters emphasis is given to the close relation and interdependence which exists between the problems involved. The committee recognizes that it is yet too early to draw any final conclusion as to the permanent effect on the health and physical efficiency of the munition workers of the abnormal conditions which have existed during the war. It has, however, set out the extent to which normal restrictions have been abandoned, and has suggested some conclusions as to the results which have followed, and finally has indicated certain conclusions as to steps which should be taken to



maintain and promote permanently the health of industrial workers when more normal conditions are restored.

#### SUMMARY OF CONCLUSIONS.

Section XX of the final report is devoted to a summary of the conclusions of the committee drawn from its studies as set forth in the memoranda to which reference has been made. This summary is as follows:

The committee consider that it is both desirable and convenient that they should conclude their final report by shortly summarizing the various principles enunciated, the conclusions arrived at, and the recommendations made in the various sections of the report. While there can be no doubt that since the appointment of the committee in September, 1915, the issue of their memoranda, the action of the central departments concerned, and the trend of opinion amongst employers, workers, and the public generally have combined to secure a very substantial improvement in the conditions of employment, it would be a very grave mistake to assume that all is now well, or that further care and attention are not still essential if a serious breakdown of industry is to be avoided. Further, while the committee have of necessity been primarily concerned with the health and physical efficiency of the munition worker under the abnormal conditions created by the war, they are strongly of opinion that the principles underlying right action at the present time are permanent and not merely transitory in importance, and should be accepted also as fundamental to all schemes for industrial health and betterment after the war. One of the vital and pressing problems before the country at the present moment and in the immediate future is the question of the health and contentment, the capacity, status, and efficiency of the industrial worker, whose contribution to the commonwealth is of ever-growing importance.

For convenience of reference the summary follows the order of the sections of the report.

#### I.—INTRODUCTORY.

(i) Since the committee were appointed in September, 1915, there has become apparent an increased appreciation of the importance of the whole question of industrial hygiene; there is no doubt that the environment and conditions of employment of the worker are vastly better than they were, though there is still much need for further improvement. Apart from the quickening of the national consciousness and sense of responsibility resulting from the war, this development may be attributed to three main causes, the widespread adoption of the recommendations contained in the committee's memoranda and reports, the establishment of "Health and welfare section" at the Ministry of Munitions, and the increased powers for securing the welfare of workers conferred upon the Home Office by the Police, Factories, etc. (miscellaneous provisions), Act, 1916.

#### II.—PRELIMINARY AND HISTORICAL SURVEY.

(ii) The problems concerned with the well-being of the worker are not new, though they have been accentuated by the war. Ever since the first beginnings of the modern factory system these problems have received increasing attention from the State, the employer, and from the workers themselves. Many of the questions considered in this report are intimately connected with wider social and industrial questions which fall outside the terms of reference of the committee.

(iii) The work of the committee has been greatly embarrassed by the limited extent to which in the past scientific investigation has been made into the various problems

affecting industrial efficiency. Inquiries into the effect of industry upon health have been largely limited to special inquiries conducted into particular "dangerous" trades. There has existed no permanent official body charged with the duty of continuing these inquiries or of investigating the effect upon health of industries which, though not technically "dangerous," may still exercise a potent influence upon health and physical efficiency. Research is greatly needed into the relationship of occupation to fatigue, invalidity, and mortality. It is only within the last 20 years that medical officers have been appointed to the factory department of the Home Office, and the limited number of those officers has made it inevitable that their activities should be largely confined to questions of immediate administrative importance. It is greatly to be hoped that permanent provision will be made for a wider and more continuous investigation of the influences of industry upon health than has hitherto been practicable.

### III.—THE RELATION OF FATIGUE AND ILL-HEALTH TO INDUSTRIAL EFFICIENCY.

(iv) The subject of industrial efficiency in relation to health and fatigue is in large degree one of preventive medicine, a question of physiology and psychology, of sociology and industrial hygiene.

(v) Fatigue is the sum of the results of activity which show themselves in a diminished capacity for doing work. Fatigue may spring from the maintained use of intelligence, the maintenance of steady attention, or the continued use of special senses. When the work is monotonous fatigue may appear in the psychical field; monotony may diminish capacity for work; on the other hand, "interest" may increase it.

(vi) Fatigue should be detected and its causes dealt with while it is still latent and before it becomes excessive. The tests of fatigue are diminished output, the failure of concentration as shown in increased accidents and spoiled work, staleness, ill health, and lost time.

(vii) Without health there is no energy, without energy there is no output. More important than output is the vigor, strength, and vitality of the nation. The conditions essential to the maintenance of health are, first, personal conditions or those favorable to the body itself (e. g., food, fresh air, exercise, warmth, and adequate rest), and, secondly, a satisfactory environment (e. g., a safe and sanitary factory, suitable hours of work, good housing accommodations, and convenient means of transit).

### IV.—THE INDUSTRIAL EMPLOYMENT OF WOMEN.

(viii) In considering conditions of employment of women as compared with those of men account must be taken not only of physiological differences, but also of those contributions which women alone can make to the welfare of the community. Certain ailments and forms of physical disability to which women are liable are readily caused, or at least accentuated, by lack of attention to their special needs.

(ix) Up to the present there has been no marked breakdown in the health of women in industry. It is probable, however, that the strain has been greater than is at present apparent, having been hitherto counteracted or disguised by certain factors, such as improved food and better factory environment, welfare supervision, and the dropping out of the physically weaker. Undoubtedly many women are only able to keep working by a total abandonment of all recreation or social intercourse.

(x) Certain conditions of employment are essential if the risk of future breakdown is to be avoided, including short hours of work conveniently arranged, medical supervision (including rest rooms, first aid, etc.), careful selection of workers, good food, a favorable factory environment, sympathetic management, and supervision.

(xi) In the case of married women, to the strain of their work must generally be added the strain involved in housework, as well as in family worries and anxieties.

Consequently they are less able to bear the strain of employment and special attention is necessary to the conditions of their work, particularly in relation to the period of pregnancy, and the care of young children. Any general prohibition of their employment is impracticable, but it should be confined so far as possible to "light" work, and the possibility might be considered of allowing them some relaxation at the beginning and end of the day, and also during the dinner interval, as is sometimes done in certain industrial districts, and also in France. The committee desire to draw special attention to the conclusions of their medical investigators.

#### V.—HOURS OF LABOR.

(xii) At the beginning of the war there existed a marked divergence of opinion as to the length of hours that men could profitably work, but there was a widespread belief that long hours produced a larger output, though not necessarily proportionately so. Men, and especially the more highly skilled workers, were frequently employed for as much as 90 hours a week. In January, 1916, the committee provisionally recommended that the average weekly hours of employment of men should be limited to 65-67; that is to say, a 13-14 hours' working day.

(xiii) In the earlier stages of the war many women were employed for over 70 hours a week, but there was a much smaller divergence of opinion as to the length of hours which was productive of the greatest output, and the committee in January, 1916, provisionally recommended that the hours of women should be restricted within the limit of 60 prescribed by the Factory and Workshops Act, 1901, and that the employment at night of girls under 18 should be limited so far as possible.

(xiv) In view of the extent to which boys are employed to help men, the committee in January, 1916, provisionally recommended that they should be allowed to work for the same hours as men, but it was urged that so far as possible boys under 16 should not be employed for more than 60 hours or at night.

(xv) The scientific data collected for the committee, and the experience gained during the past two years, combine to support the view that the length of hours of employment provisionally recommended two years ago are now too long and can be reduced without loss of output.

(xvi) By economizing time, apart from any increased rapidity of working, the hourly rate of output can be considerably increased.

(xvii) Though hours of work have been much reduced during the past two years the time is ripe for further substantial reductions. What the extent of the reduction should be in any particular case can only be determined after considering a number of factors, such as the physical or mental strain of the work, the extent to which the pace of the work is governed by the machine, the factory environment, the physical capacity, the age, sex, and experience of the worker, the suitability of the food taken by the worker, the arrangement of hours of work and conditions outside the factory (e. g., housing and transit).

#### VI.—SHIFTS, BREAKS, SPELLS, PAUSES, AND HOLIDAYS.

(xviii) Provided that the weekly hours of employment are reasonable it follows in practice that the daily hours of employment will also be confined within moderate limits.

(xix) The daily employment of workers is organized, either in single shifts, or in double shifts, or in three shifts. From the point of view of output single shifts are open to objection owing to the large number of hours during which the machinery lies idle. Double shifts are the form of employment most commonly adopted. Though night work is open to serious objection, at any rate for women and adolescents, double shifts under reasonable conditions are undoubtedly productive of increased



output, since they enable the machinery to be employed for the greater part of the 24 hours.

(xx) Wherever possible an interval should be left between the two shifts. The shorter hours of employment involved are widely recognized to be advantageous from the point of view both of the health of the worker and of output. Apart from this, opportunity is afforded for cleaning and ventilating the shops.

(xxi) The three-shift system, especially for women, has much to commend it where it can be organized. The difficulties involved arise in combining the hours of men and women workers, from the shortness of meal intervals, from the workers' fear that shorter hours will mean smaller wages, and from the benefit of the shorter hours being lost through misuse of leisure time or by its devotion to housework duties. The numerous instances in which the three-shift system has been successfully organized show that these difficulties are ordinarily surmountable.

(xxii) The ordinary daily hours of work are organized either under the "two break" system or the "one break" system. Under the former system work usually commences at 6 a. m., and the normal breaks are half hour for breakfast and one hour for dinner. Under the latter system the work commences after breakfast at 7 or 8 a. m. and there is frequently only a single break of one hour for dinner, though a break for tea is sometimes necessitated by the hours of work.

(xxiii) The evidence suggests that work before breakfast is a mistake. Only the minority of workers can put in their best work before having a proper meal in the morning. The time lost often causes serious disorganization, and even where the discontinuance of work before breakfast involves a small reduction in the nominal hours of employment the loss is generally more than made good by the reduction in the time lost.

(xxiv) Many women and young persons can not profitably be employed for the full spell of five hours on continuous work allowed by the Factory Act.

(xxv) Even where the spell is somewhat less than five hours, employers frequently allow short intervals for refreshment in the afternoon, and also in the morning. These pauses not only provide an opportunity for refreshment, but a period of rest and recovery from fatigue, and a break in the monotony of work.

(xxvi) All workers engaged on active work take voluntary rest periods, generally quite unsystematically. It is desirable that these rests should be replaced by authorized rest pauses systematically determined.

(xxvii) All workers should be allowed periodic holidays—preferably of several days' duration. They are equally important for the management and foremen. They also afford an opportunity for repairs to plant and machinery.

#### VII.—SUNDAY LABOR AND NIGHT WORK.

(xxviii) At the commencement of the war Sunday labor, especially for men, was widely adopted in the hope of increasing output. The evidence, however, proves conclusively that Sunday labor is unpopular, uneconomical, and not productive of increased output.

(xxix) In accordance with an early recommendation of the committee, Sunday labor is now almost entirely confined to sudden emergencies, repairs, attending furnaces, and certain continuous processes. Constant scrutiny is, however, necessary in order to secure that such exceptions as continue are confined within the narrowest limits. Where Sunday labor becomes necessary, arrangements should be made by a system of relief shifts, that no individual worker is employed more than six days in the week.

(xxx) Even for men night work is open to serious objection. It is uneconomical owing to the higher charges for wages, lighting, and heating. Lighting is generally inferior and supervision more difficult. Adequate sleep by day is difficult owing to

dislocation of ordinary habits or from social causes. Social intercourse and recreation can hardly be obtained except by an undue curtailment of sleep. Continuance of education is generally impracticable. Finally, it is unnatural to turn night into day.

(xxxix) Night work for women and girls has been illegal for over 50 years. Although inevitable for adult women under existing conditions, it should be stopped as soon as it ceases to be essential. Night work for girls under 16 has now been entirely stopped; for girls between 16 and 18 it has been largely curtailed and should be ended as soon as possible.

(xl) Night work for boys is only legal in certain continuous processes. It has already been curtailed for boys under 16, and should be altogether stopped. The committee fully indorse the arguments against the employment of any boys under 18 at night which were put forward in the report of the departmental committee on the "Night employment of male young persons in factories and workshops."

(xli) There is no uniformity of practice as to how long a worker should remain on the night shift at any one time. A week is the commonest period, but much depends on the social conditions under which he lives. Investigations suggest that continuous night work is productive of less output than the system under which a worker is engaged on day and night shifts alternately. There is no evidence that the output of a continuous day shift balances this inferiority.

#### VIII.—LOST TIME AND INCENTIVE.

(xlii) Time may be lost through the failure of the worker to attend the factory regularly, or it may be lost at the factory by slackness at the beginning or end of the spell, unregulated rest pauses, or lack of material.

(xliii) The causes of lost time (as ordinarily understood) may be broadly divided into those that are mainly inherent (e. g., sickness and accidents external to the factory, bad conditions of housing and transit, bad weather, domestic duties, or lack of material) and those which are mainly controllable (e. g., sickness and accidents of factory origin, drink, indifference, discontent, overtime and Sunday work, lack of work).

(xliv) The proportion of lost time due to sickness is generally greatly underestimated.

(xlv) The causes of lost time should be carefully ascertained and remedies sought.

(xlvi) Incentives to work include patriotism, a good factory environment, social amenities, instruction of the new worker, suitable and sufficient rest pauses, and wages.

(xlvii) Wages are probably the most important incentive. No wage system can afford an effective incentive unless there is a healthy body of workers. The system must be easily understood and properly adjusted. The incentive fails if the workers can obtain too easily the money required to meet their social aspirations, or if the hours of work prevent their spending the money earned.

#### IX.—FOOD AND CANTEENS.

(xlviii) The requirements of the body for food are largely affected by the amount of physical energy expended in daily work and by the environment of the worker. Growing boys and girls require relatively more food than adults. For the maintenance of industrial efficiency the worker must have food which is adequate in amount, nutritious, fresh, digestible, and appetising.

(xlix) Apart from any question of shortage of food supplies many workers do not obtain suitable food owing to domestic difficulties, distance of the home from the factory, night work, and ignorance of the need (in the case of women).

(xlii) Carried food is unsatisfactory owing to the limitation in the kinds of food suitable. Further, the food is necessarily cold and may deteriorate easily. Means of heating up food are useful, but are inadequate because such food loses nutritive value. The heating up of any large number of meals is difficult to do satisfactorily.

(xliii) The only satisfactory solution of the problem of providing suitable food at low prices for large numbers at convenient times lies in the establishment of industrial canteens. Apart from the suitability of the food provided the essentials for success of a canteen include accessibility, the convenience and attractiveness of the premises, prompt service, convenient hours of opening, and a system of management acceptable to the workers.

(xliv) At the end of 1917 there were about 840 canteens in munition works and docks. The committee are strongly impressed with the value of the facilities thus afforded and are convinced that they have very materially contributed to the maintenance of the health of the worker, to the prevention of a serious breakdown under the strain imposed by war conditions, and to increased efficiency and energy and corresponding output. Though the need for canteens has been accentuated by war conditions, it is in a large measure a permanent one.

#### X.—SICKNESS AND ILL HEALTH.

(xlv) An undue proportion of sickness in any group of workers usually represents among those not actually sick lessened vigor and activity which can not fail to reduce output.

(xlvi) Conditions of industrial occupation may affect health by reason of long hours of work, cramped and constrained attitudes, prolonged or excessive muscular strain, bad ventilation and lighting, dust and fumes. To the influences of occupation upon health must be added the predisposition to disease arising from the absence of personal hygiene.

(xlvii) Medical inquiries suggest that the principal forms of minor ill health to be found amongst male workers are headache, footache, muscular pains, sleepiness on the night shift, and nervous symptoms; amongst women workers indigestion, headache, anemia, and muscular pains.

(xlviii) Records of sickness, broken time, or diminished output should be carefully kept and scrutinized. For a correct appreciation of their significance account must be taken of various causes of fluctuation, such as climatic conditions, approaching or recent holidays, patriotic enthusiasm, long hours, and Sunday labor.

(xlix) Any sound system for dealing with industrial disease must be based on the principles, first, that prevention is better than cure, and secondly, that the treatment, to be imposed effectively, must deal with the beginnings of the disease. It follows that the preliminary safeguard should be to extend to all workers the preliminary medical examination already provided for in certain munition works and especially in those where dangerous substances are manipulated. Such an examination is especially necessary at the present time owing to the strain involved by present conditions of employment and owing to the large number of persons who are taking up industrial employment for the first time; but such examinations are likely to be always desirable where the work involves special strain and particularly so in the case of women. There is a similar need for periodic reexamination of such workers.

(1) The present provisions of the Factory Act for the certification of the physical fitness for employment of children and young persons can hardly be regarded as adequate. The factory's certifying surgeon has seldom any previous knowledge of the case. The value of his certificate would be greatly increased if it were only given after consideration of the medical records in the possession of the School Medical Service, and closer cooperation appears to be desirable. At present these records are seldom available. Provision is now seldom made for periodic reexamination, but it



is extremely desirable having regard to the effect of entry into industrial life. The departmental committee on the night employment of male young persons emphasized the need for periodic examinations once at least in every six months, and recommended that records of the results should be kept.

(li) The second preventive measure is to reduce to a minimum unfavorable conditions of environment. Thirdly, arrangements should be made for adequate medical and nursing schemes. Medical attendance is usually obtainable under the national insurance system, but nursing can only be obtained by the employment of one or more trained nurses to undertake duties in the factory by night as well as by day. The duties of the nurse would include supervision of the health of the workers and especially of those temporarily indisposed, following-up cases of sickness and taking charge of first-aid treatment of injuries. Such arrangements have been instituted in many munition factories, especially where women are employed, and have proved of great value to employers and employed alike.

#### XI.—INJURIES AND ACCIDENTS.

(lii) A grave amount of disablement is caused by accidents, such as fractures, open wounds, and injured limbs, but probably an even larger amount of interruption to work is caused by slighter injuries, such as scratches and burns, which may, however, become serious if neglected. The principal causes of accidents are speed of working, fatigue, psychical influences, nutrition, and alcoholic consumption, lighting, and temperature.

(liii) A large number of accidents are preventable, and it is to the interests of all parties that the number should be reduced. However complete the installation for securing the safety of workers, success must largely depend upon the intelligent co-operation of workers and foremen, and their help should be secured in studying causes and methods of prevention.

(liv) However effective may be the methods of prevention adopted some accidents will occur. It is accordingly important that in each shop there should be one or two workers trained to render first aid in case of accidents. Leaflets of instruction and advice should be issued.

(lv) Though in many factories good provision has been made for the treatment of accidents, great improvements should result from the recent Home Office order requiring employers in certain industries to provide and maintain—

(a) First-aid posts or local dressing stations for every 150 workers; and,

(b) An ambulance room or central dressing station wherever the total number of employees is 500 or more. The room is to be in charge of a nurse or other person trained in first-aid work. Records of all cases treated are to be kept. Provision is also to be made for the conveyance to hospital of the more serious cases.

#### XII.—EYE INJURIES.

(lvi) Injuries to and diseased conditions of the eye are a widespread cause of inefficiency. The principal causes are accidents from flying particles and impacted bodies arising from grinding and similar operations, injuries due to exposure to intense heat and eyestrain from inferior lighting, uncorrected errors of refraction, or other causes.

(lvii) The principal measures of prevention are the provision of eye guards or goggles, good lighting, examination of eyesight, and the provision of suitable spectacles. Accidents, if neglected, may easily cause serious incapacity, and they should receive immediate attention from a doctor, or, failing him, a qualified nurse.

#### XIII.—SPECIAL INDUSTRIAL DISEASES.

(lviii) From the point of view of munition work TNT is much the most important of the "dangerous" occupations, both on account of the serious effects which may result and the large numbers of workers employed. It may be absorbed through the

skin or through the digestive tract, or by the inhalation of fumes or dust. Poisoning normally takes one or more of the following forms: Dermatitis, digestive troubles, blood changes, and liver degeneration (toxic jaundice). The occurrence of poisoning depends to some extent upon personal idiosyncrasy. The great majority of workers are insusceptible and remain so, but a few are affected, but not always those who, owing to ill health and malnutrition, might be expected to be specially liable.

(lix) The conditions of employment in the manufacture of TNT are governed by a Home Office order, while its use and manipulation are governed by regulations of the ministry. The principal means of prevention adopted are, the reduction to a minimum of dust and fumes, constant medical supervision, limitation of the period of exposure, provision of ample and suitable food, special working costumes, and suitable cloakrooms and washing facilities.

(lx) Other substances in the manufacture and use of which special precautions are necessary include lead, fulminate of mercury, tetryl, aeroplane dope, picric acid, poisonous gases, and nitrous fumes. The preventive measures adopted are on similar lines to those for TNT.

#### XIV.—CLEANLINESS, VENTILATION, HEATING, AND LIGHTING.

(lxi) A high standard of cleanliness is essential not only for health, but because it has an important bearing on the self-respect of the worker.

(lxii) Flooring should be smooth, hard, durable, and impervious. Wooden flooring should be provided for standing on, as causing less fatigue and being more conducive to warmth and dryness of the feet.

(lxiii) The object of ventilation is to provide air which is pure, clean, stimulating, and refreshing. The air should be cool and dry, not monotonous in temperature, and moving rather than stagnant. The principal impurities are carbonic acid (principally important as affording an indication of the efficiency of ventilation), volatile substances given off from the skin and alimentary canal of human beings, bacteria, dust, and fumes.

(lxiv) The ventilation and heating of every workshop presents a separate problem. There should be adequate cubic capacity, louvers or other definite openings into the outside air, supplemented by the use of doors, windows, and fans.

(lxv) What is the best temperature depends on the work and habits of the worker. Sedentary workers may require a temperature of about 60° F., though it may be somewhat higher if the air is in motion.

(lxvi) Some one person should be made responsible for securing the proper use and maintenance of any installation for ventilation and heating.

(lxvii) Lighting should be adequate, reasonably uniform, shaded from the eyes of the worker, and should not cause extraneous shadows. Windows should be cleaned regularly.

#### XV.—SANITATION, WASHING, AND CLOAKROOMS.

(lxviii) For the proper maintenance of health it is essential that the sanitary accommodation should be adequate, conveniently arranged, and kept thoroughly clean.

(lxix) Washing is beneficial to the health, efficiency, and self-respect of the worker, and there is a growing demand for the provision of facilities. The installation must be adequate in amount, readily accessible, and easily maintained. Washing troughs are generally to be preferred to separate basins. An ample supply of hot and cold water, nailbrushes, soap, and towels are other essentials.

(lxx) The provision of baths is recommended where workers are employed on hot or dusty processes. In such cases they may prove an effective antidote to muscular rheumatism.

(lxxi) Cloakrooms are necessary for health, especially of women and girls. They should be close to the canteens, lavatory, and sanitary accommodation. Separate lockers should be provided for each worker. There should be ample accommodation

for changing clothes and boots, and for the drying of clothes. They should be kept thoroughly clean and ventilated. Means should be taken to prevent petty pilfering or theft.

#### XVI.—SEATS, WEIGHTS, CLOTHING, AND DRINKING WATER.

(lxxii) Protective clothing, though essential for certain types of employment (e. g., those involving dirt, dust, damp, heat, or dangerous machinery), is desirable for all workers, and especially for women and girls. It adds to their smartness and neatness, and also aids discipline and esprit de corps.

(lxxiii) Whatever the nature of their employment, workers should have opportunities of sitting down from time to time. Comfortable seats should also be provided for use during meal hours, and for workers who are temporarily indisposed.

(lxxiv) Apart from their inferior physical strength, women are more liable than men to strain from sudden muscular effort. To obviate this, attention should be paid to the size and shape of burdens, receptacles and vehicles, labor-saving contrivances, to the knack of lifting, and to hours of employment.

(lxxv) The committee fully indorse the policy underlying the order recently made by the Home Office requiring the provision of adequate facilities for obtaining drinking water in all factories.

#### XVII.—WELFARE SUPERVISION FOR WOMEN AND GIRLS.

(lxxvi) Under modern industrial conditions the employer usually has neither the time nor frequently the experience to give the requisite attention to many of the special problems affecting the health and welfare of women workers. There has therefore been an increasing tendency to appoint a special officer for the purpose, who is generally called a "welfare supervisor" or "welfare superintendent."

(lxxvii) The stress of war conditions, the widespread introduction of women into industry, and the increased employment of married women and young girls greatly increased the need for adequate supervision and led the committee to recommend in January, 1916, the appointment of welfare supervisors in all factories where women were employed.

(lxxviii) The welfare supervisor should have a clearly defined status and definite duties, and should be directly responsible to the manager. What her exact duties may be will to some extent depend upon the circumstances of the factory and her own capacity. Experience, however, shows that her duties may properly include the engagement of workers (so far as their general suitability is concerned); keeping of records of individual workers; investigation of cases of lost time, sickness, low output, or wages, incapacity, dismissals or withdrawals, working conditions, home visiting, feeding arrangements, training and instruction, housing, transit and recreation. They should not interfere with the work of trades-unions.

(lxxix) The welfare supervisor must be of good standing and education, and must possess strength of character, tact, and broadmindedness, such as will secure the confidence of the management as well as of the workers. Provided only that they are possessed of the requisite qualifications, they can be and are drawn from all classes of the community.

(lxxx) It is, as a rule, desirable that welfare supervisors should have undergone a preliminary course of training of not less than one year's duration, which should, while allowing of a special study of welfare problems be grounded on a wide study of social questions. A large part of the time should be devoted to practical work. Neither admission to the course nor financial assistance should be conditional on the student subsequently taking up welfare work.

(lxxxi) Welfare supervision should not be appointed by the State. They will probably continue for some time to come at any rate to be appointed by the employer,



as the person responsible for the maintenance of satisfactory conditions of employment, though the workers are likely to an increasing extent to seek some voice in the selection. Though the establishment by the Ministry of Munitions of a panel of candidates has been justified as a temporary expedient, it is not desirable that any department of state should do so as a permanent arrangement.

(lxxxii) The time has not yet come when a definite judgment can be passed on the development of welfare work during the past two years, still less is it possible to prophesy as to future lines of development. The confident support of the workers has yet to be obtained. Undoubtedly unwise appointments have been made; complaints have been considerable and often well founded, though their importance may have been overemphasized. On the other hand some mistakes were inevitable in the initiation of what was largely a new enterprise in industrial organization. The conditions of employment of women have vastly improved. It has been and is likely to be of material advantage that there should exist a body of persons specially concerned to promote the health and well-being of the worker.

#### XVIII.—WELFARE SUPERVISION FOR BOYS AND MEN.

(lxxxiii) The problems involved in the welfare supervision of boys are not new, though they have been accentuated by the war. The essential remedy is personal influence. The influences to which they are subject will largely affect their permanent outlook on life. High wages, restlessness, lack of control, all have demoralizing influences, which specially need control at the present time.

(lxxxiv) Personal influence to be effective must ordinarily be exercised by some one individual, and the committee in January, 1916, recommended the appointment of welfare supervisors wherever 100 boys are employed. Experience has shown that for this number of boys a full-time appointment is desirable. Where, as is more often the case, a smaller number are employed, a part-time arrangement is usual.

(lxxxv) The duties of a welfare supervisor for boys may usefully include most of those specified in the case of women, but nothing which makes for their well-being should be alien to his duties. The wider his outlook the stronger is likely to be his position. It is specially desirable that he should keep in touch with all other persons and bodies in the district who are concerned with the well-being of boys. Recreation, training, and instruction are matters calling for special concern.

(lxxxvi) The need for the welfare supervision of boys has not been so readily appreciated as in the case of women and girls, and time has been required for obtaining the support of the foremen and the local trades-unions as well as of the employer. These initial difficulties have, however, not been without their advantages in preventing hasty or ill-considered schemes, and while it is as yet too early to form any final judgment the work appears to have started on sound lines.

(lxxxvii) The problems of the welfare supervision of men are much more difficult, and only gradual development is to be anticipated. The whole question is intimately concerned with the growth of work councils now being so widely discussed. In the immediate future at any rate any welfare work among men is likely to grow spontaneously out of that for boys.

#### XIX.—WELFARE OUTSIDE THE FACTORY.

(lxxxviii) The State being responsible for the employment of large bodies of workers, and especially women, in places remote from their own homes, has a special responsibility for their welfare outside the factory. The Ministry of Munitions have placed in the principal munition areas a number of officers specially charged with the duty of looking after the health of the worker outside the factory; they deal with such matters as housing and transit, sickness and recreation.

(lxxxix) It is of the utmost importance that only healthy, clean, and wholesome minded women should be exported. Mothers with young children should not be exported. No woman or girl should be exported without sufficiency of money and clothing. Travelers across country should be seen off and met.

(xc) In all large centers clearing hostels should be provided in which women can be housed until other accommodation can be found for them.

(xci) Lodgings with or without board in a family is generally the readiest and most acceptable means of housing women and girls. An organized system is required for providing suitable lodgings and keeping them under supervision. In the more important areas this work is generally undertaken through officers of the Ministry of Munitions, or by local billeting committees established by the central billeting board under the billeting act. Under that act payments for rent and board can be guaranteed. No use has hitherto been made of the power of compulsory billeting, and it is doubtful how far it is workable in practice.

(xcii) In most areas the problem, however, is one not of lodgings but of housing, and existed before the war. Assistance has been given in some areas to local authorities for the provision of additional permanent accommodation, but in the main the requisite housing has had to be provided by the establishment of hostels and huts.

(xciii) Hostels have not always been popular. Objection has been taken to living in large institutions or under the control of the employer, also to the restrictions on individual liberty which are involved. Some workers only use them on account of the lack of other decent accommodation and the difficulty of housekeeping under present conditions. It is of particular importance that the planning and management of hostels should be thoroughly satisfactory. In Appendix F detailed suggestions are given.

(xciv) Sickness, however temporary, among girls in lodgings involves much hardship, and may become serious if neglected, and special steps should be taken to deal with it. Action is also necessary in the case of girls thrown out of work or otherwise stranded, often through no fault of their own.

(xcv) Recreation is an essential aid to recovery from fatigue, and adequate provision for it should be made, especially in those areas where large numbers of imported workers are employed. Much attention is now being given to the subject and facilities are steadily increasing. Where they can be organized central schemes available for all workers in the district are to be preferred. More often, however, provision depends upon the initiative of an individual firm and its workers, and most welfare supervisors are concerned with schemes for recreation.

(xcvi) The maintenance of public order, notably in centers where large numbers of girls are assembled, has led to the employment of women police and patrols. They have done valuable service both inside the factory and outside the factory, also in assisting the regular police.

(xcvii) Much has been done to improve the health and increase the efficiency of the munition worker by the reduction in excessive drinking which has been brought about through the restrictive measures of the central control board (liquor traffic).

The final report contains a number of appendixes, some of which may be noted as follows: A report on "A further inquiry into the health of women munition workers"; "General findings of inquiries into the health of women munition workers"; a memorandum on "A comparison of the systems employed for dividing up working hours into spells and breaks"; summary of memorandum on "The causes of wastage of labor in munition factories employing women";

Canteen planning and equipment; Hostel planning and equipment; Home Office order in regard to first-aid appliances; Ministry of Munitions memorandum on "The duties of welfare supervisors for women."

## SECOND REPORT ON JOINT INDUSTRIAL COUNCILS BY THE BRITISH MINISTRY OF RECONSTRUCTION.<sup>1</sup>

The second report of the Committee on Relations between Employers and Employed of the British Ministry of Reconstruction was summarized in the MONTHLY REVIEW for May, 1918 (pp. 59-61). Owing to the very great importance of the joint industrial council plan as inaugurated upon recommendation of the committee in its first report (the Whitley report), submitted on March 8, 1917, and published in full in Bulletin No. 237 of this bureau, this second report of the committee, addressed to the Right Hon. D. Lloyd George, M. P. (prime minister), is here reproduced in full:

SIR: Following the proposals made in our first report, we have now the honor to present further recommendations dealing with industries in which organization on the part of employers and employed is less completely established than in the industries covered by the previous report, and with industries in which such organization is weak or nonexistent.

2. Before commencing the examination of these industries the subcommittee came to the conclusion that it would materially assist their inquiries if they could have the direct advantage of the knowledge and experience of some representative employers who were connected with industries of the kind with which the committee were about to deal; and it was arranged, with your approval, that Sir Maurice Levy, Mr. F. N. Hepworth, Mr. W. Hill, and Mr. D. R. H. Williams should be appointed to act with the subcommittee while these industries were under consideration. This arrangement made it possible to release from attendance at the earlier meetings of the committee Sir Gilbert Claughton, Sir T. Ratcliffe-Ellis, Sir George J. Carter, and Mr. Allan Smith, whose time is greatly occupied in other public work and whose experience is more particularly related to the organized trades covered by our former report.

3. It is difficult to classify industries according to the degree of organization among employers and employed, but for convenience of consideration the industries of the country may be divided into three groups:

*Group A.*—Consisting of industries in which organization on the part of employers and employed is sufficiently developed to render their respective associations representative of the great majority of those engaged in the industry. These are the industries which we had in mind in our first interim report.

*Group B.*—Comprising those industries in which, either as regards employers and employed, or both, the degree of organization, though considerable, is less marked than in Group A.

*Group C.*—Consisting of industries in which organization is so imperfect, either as regards employers or employed, or both, that no associations can be said adequately to represent those engaged in the industry.

The present report is concerned with Groups B and C.

4. So far as groups A and C are concerned, a number of industries can be definitely assigned to them. Group B, however, is necessarily more indeterminate. Some of

<sup>1</sup> Great Britain. Ministry of Reconstruction. Committee on Relations Between Employers and Employed. Second report on joint standing industrial councils. London, 1917. 5 pp.



the industries in this group approach closely to industries in group A, while others verge upon group C. Further, most industries, in whatever class they may fall, possess a "tail," consisting of badly organized areas, or sections of the industry. These facts we have borne in mind in formulating our further proposals.

5. So far as industries in group B are concerned, we are of opinion that the proposals of our first report should, in their main lines, be applied to those which, on examination by the Ministry of Labor in consultation with the associations concerned, are found to be relatively well organized. We suggest, however, that where in these industries a national industrial council is formed there should be appointed one or at most two official representatives to assist in the initiation of the council, and continue after its establishment to act in an advisory capacity and serve as a link with the Government. We do not contemplate that a representative so appointed should be a member of the national industrial council, in the sense that he should have power, by a vote, to influence the decisions of the council, but that he should attend its meetings and assist in any way which may be found acceptable to it. By so doing he would acquire a continuous knowledge of the conditions of the industry of which the Government could avail itself and so avoid many mistakes that under present conditions are inevitable.

The question of the retention of the official representatives should be considered by the councils in the light of experience gained when an adequate time has elapsed. We anticipate that in many cases their continued assistance will be found of value even after an industry has attained a high degree of organization, but in no case should they remain except at the express wish of the councils concerned.

6. It may be that in some group B industries in which a national industrial council is formed certain areas are well suited to the establishment of district councils, while in other areas the organization of employers or employed, or both, is too weak to be deemed representative. There appears to be no good reason why in the former areas there should not be district industrial councils, acting in conjunction with the national industrial councils, in accordance with the principles formulated in the committee's earlier report on the well-organized trades.

7. An examination of some of the industries coming within group B may show that there are some which, owing to the peculiarities of the trades and their geographical distribution, can not at present be brought readily within the scope of the proposals for a national industrial council, though they may be quite well organized in two or more separate districts. In such a case we think there might well be formed one or more district industrial councils. We anticipate that in course of time the influence of the district councils would be such that the industry would become suitable for the establishment of a national industrial council.

8. In the case of industries in group B (as in the industries covered by our first report), we consider that the members of the national councils and of the district councils should be representatives of the employers' associations and trade-unions concerned. In the formation of the councils, regard should be paid to the various sections of the industry and the various classes of labor engaged, and the representatives should include representatives of women's organizations. In view of the extent to which women are employed in these industries, we think the trade-unions, when selecting their representatives for the councils, should include a number of women among those who are appointed to be members.

9. It does not appear to us necessary or desirable to suggest any fixed standard of organization which should exist in any industry before a national industrial council should be established. The case of each industry will need to be considered separately, regard being paid to its particular circumstances and characteristics.

In the discussion of this matter we have considered whether it would be feasible to indicate a percentage of organization which should be reached before a council is

formed, but in view of the great diversity of circumstances in these industries and of the differing degrees to which several sections of some of them are organized, we have come to the conclusion that it is more desirable to leave the matter to the decision of the Ministry of Labor and the organizations concerned. Whatever theoretical standard may be contemplated, we think its application should not be restrictive in either direction.

10. The level of organization in industries in group C is such as to make the scheme we have proposed for national or district industrial council inapplicable. To these industries the machinery of the Trade Boards Act might well be applied pending the development of such degree of organization as would render feasible the establishment of a national council or district councils.

11. The Trade Boards Act was originally intended to secure the establishment of a minimum standard of wages in certain unorganized industries, but we consider that the trade boards should be regarded also as a means of supplying a regular machinery for negotiation and decision on certain groups of questions dealt with in other circumstances by collective bargaining between employers' organizations and trade-unions.

In order that the Trade Boards Act may be of greater utility in connection with unorganized and badly organized industries, or sections of industries, we consider that certain modifications are needed to enlarge the functions of the trade boards. We suggest that they should be empowered to deal not only with minimum rates of wages but with hours of labor and questions cognate to wages and hours. We are of opinion also that the functions of the trade boards should be extended so as to enable them to initiate and conduct inquiries on all matters affecting the industry or the section of the industry concerned.

12. If these proposals were adopted there would be set up in a number of industries, or sections of industries, trade boards (consisting of representatives of employers and employed, together with "appointed members") who would, within the scope of their functions, establish minimum standard rates and conditions applicable to the industry or section of the industry which they represented, and consider systematically matters affecting the well-being of the industry.

13. Where an industry in group C becomes sufficiently organized to admit of the institution of national and district councils, we consider that these bodies should be set up on the lines already indicated. Where it appears to a trade board that an industrial council should be appointed in the industry concerned, they should have power (a) to make application to the minister of labor asking him to approach the organizations of employers and employed, and (b) to suggest a scheme by which the representation of the workers' and employers' sides of the trade board could be secured.

14. Whether in industries in group C the establishment of works committees is to be recommended is a question which calls for very careful examination, and we have made the general question of works committees the subject of a separate report.

15. We have already pointed out that most of the industries in groups A and B have sections or areas in which the degree of organization among the employers and employed falls much below what is normal in the rest of the industry, and it appears to us desirable that the general body of employers and employed in any industry should have some means whereby they may bring the whole of the trade up to the standard of minimum conditions which have been agreed upon by a substantial majority of the industry. We, therefore, recommend that on the application of a national industrial council sufficiently representative of an industry the Ministry of Labor should be empowered, if satisfied that the case is a suitable one, to make an order either instituting for a section of the industry a trade board on which the national industrial council should be represented, or constituting the industrial council a trade board under the provisions of the Trade Boards Act. These proposals are not intended to limit, but to be in addition to, the powers at present held by the Ministry of Labor

with regard to the establishment of trade boards in trades and industries where they are considered by the ministry to be necessary.

16. We have already indicated (paragraph 9) that the circumstances and characteristics of each of the several industries will need to be considered before it can be decided definitely how far any of our proposals can be applied in particular instances, and we have refrained from attempting to suggest any exact degree of organization which would be requisite before a particular proposal could be applied. We think, however, that the suggestion we have made in the preceding paragraph to confer upon a national industrial council the powers of a trade board should be adopted only in those cases in which the Ministry of Labor is satisfied that the council represents a substantial majority of the industry concerned.

17. We are of opinion that most of the chief industries of the country could be brought under one or other of the schemes contained in this and the preceding report. There would then be broadly two classes of industries in the country—industries with industrial councils and industries with trade boards.

18. In the former group the national industrial councils would be constituted either in the manner we have indicated in our first report, carrying with them district councils and works committees, or on the lines suggested in the present report, i. e., each council coming within the scope of this report having associated with it one or two official representatives to act in an advisory capacity and as a link with the Government, in addition to the representatives of the employers and employed.

19. It should be noted that in the case of industries in which there is a national industrial council, trade boards might, in some instances, be associated with the council in order to determine wages and hours, etc., in certain sections or areas. It is possible that in some allied trades, really forming part of the same industry, both sets of proposals might, in the first instance, be in operation side by side, one trade having its industrial council and the other its trade board. Where these circumstances obtain, we anticipate that the trade board would be a stepping stone to the full industrial council status.

20. It may be useful to present a brief outline of the proposals which we have so far put forward:

(a) In the more highly organized industries (group A) we propose a triple organization of national, district, and workshop bodies, as outlined in our first report.

(b) In industries where there are representative associations of employers and employed, which, however, do not possess the authority of those in group A industries, we propose that the triple organization should be modified by attaching to each national industrial council one or at most two representatives of the Ministry of Labor to act in an advisory capacity.

(c) In industries, in both groups A and B, we propose that unorganized areas or branches of an industry should be provided, on the application of the national industrial council and with the approval of the Ministry of Labor, with trade boards for such areas or branches, the trade boards being linked with the industrial council.

(d) In industries having no adequate organization of employers or employed, we recommend that trade boards should be continued or established, and that these should, with the approval of the Ministry of Labor, be enabled to formulate a scheme for an industrial council, which might include in an advisory capacity the "appointed members" of the trade board.

21. It will be observed that the policy we recommend is based upon organization on the part of both employers and employed. Where this is adequate, as in group A industries, there is no need of external assistance. In group B industries we think that the organizations concerned would be glad to have the services of an official representative who would act as advisor and as a link with the Government. In unorganized sections of both groups of industries we believe that a larger measure of



Government assistance will be both desirable and acceptable, and we have therefore suggested the adoption of the machinery of the Trade Boards Act in this connection. In group C industries we think that organization will be encouraged by the use of the powers under the Trade Boards Act, and where national industrial councils are set up we recommend that the "appointed members" of the trade board should act on the councils in an advisory capacity. Briefly, our proposals are that the extent of State assistance should vary inversely with the degree of organization in industries.

22. We do not, however, regard Government assistance as an alternative to the organization of employers and employed. On the contrary, we regard it as a means of furthering the growth and development of such organization.

23. We think it advisable in this connection to repeat the following paragraph from our former report:

It may be desirable to state here our considered opinion that an essential condition of securing a permanent improvement in the relations between employers and employed is that there should be adequate organization on the part of both employers and workpeople. The proposals outlined for joint cooperation throughout the several industries depend for their ultimate success upon there being such organization on both sides; and such organization is necessary also to provide means whereby the arrangements and agreements made for the industry may be effectively carried out.

24. In considering the scope of the matters referred to us we have formed the opinion that the expression "employers and workmen" in our reference covers State and municipal authorities and persons employed by them. Accordingly we recommend that such authorities and their workpeople should take into consideration the proposals made in this and in our first report, with a view to determining how far such proposals can suitably be adopted in their case.

We understand that the Ministry of Labor has up to the present circulated our first report only to employers' and workpeople's associations in the ordinary private industries. We think, however, that both it and the present report should also be brought to the notice of State departments and municipal authorities employing labor.

25. The proposals we have set forth above do not require legislation except on three points, namely, to provide—

(1) That the trade boards shall have power, in addition to determining minimum rates of wages, to deal with hours of labor and questions cognate to wages and hours.

(2) That the trade boards shall have power to initiate inquiries, and make proposals to the Government departments concerned, on matters affecting the industrial conditions of the trade, as well as on questions of general interest to the industries concerned, respectively.

(3) That when an industrial council sufficiently representative of an industry makes application, the Ministry of Labor shall have power, if satisfied that the case is a suitable one, to make an order instituting for a section of the industry a trade board on which the industrial council shall be represented, or constituting the council a trade board under the Trade Boards Act.

26. The proposals which we have made must necessarily be adapted to meet the varying needs and circumstances of different industries, and it is not anticipated that there will be uniformity in practice. Our recommendations are intended merely to set forth the main lines of development which we believe to be essential to ensure better relations between employers and employed. Their application to the several industries we can safely leave to those intimately concerned, with the conviction that the flexibility and adaptability of industrial organization which have been so large a factor in enabling industry to stand the enormous strain of the war will not fail the country when peace returns.

27. Other problems affecting the relations between employers and employed are engaging our attention, but we believe that, whatever further steps may be necessary to accomplish the object we have in view, the lines of development suggested in the present report and the one which preceded it are fundamental. We believe that in each industry there is a sufficiently large body of opinion willing to adopt the proposals we have made as a means of establishing a new relation in industry.

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#### INDUSTRIAL COUNCILS AND TRADE BOARDS IN GREAT BRITAIN.

An entirely new departure affecting the relations between employers and employed in Great Britain, with a view to improving such relations and fostering a better understanding on both sides in order to prevent many of the difficulties which have heretofore interfered with complete cooperation between employers and workpeople, is the proposal to establish joint standing industrial councils as set forth in the so-called Whitley report submitted on March 8, 1917. The plan suggested by the Reconstruction Committee subcommittee on relations between employers and employed has aroused very great public interest and promises to be one of the most significant and far-reaching developments of the war, so far as labor is concerned. This report was summarized in the MONTHLY REVIEW for September, 1917 (pp. 130-132) and printed in full in Bulletin 237 of this bureau (pp. 229-237). Subsequently, on October 18, 1917, the committee issued a second report on joint standing industrial councils, dealing especially with industries in which organization on the part of employers and employed is less completely established than in the industries covered by the first report, and with industries in which such organization is weak or nonexistent. This report was summarized in the MONTHLY REVIEW for May, 1918 (pp. 59-61) and is printed in full in this issue (pp. 53-58). On the same date a supplemental report on works committees as a part of the industrial council plan was issued and was noted in the MONTHLY REVIEW for June, 1918 (pp. 163-165). The Whitley report was adopted by the British Government as a part of the policy which it hopes to carry into effect in the field of industrial reconstruction, and in a letter dated October 20, 1917, addressed by the minister of labor to leading employers' associations and trade-unions, the attitude of the Government toward the proposals of the report was fully explained. This letter was published in the MONTHLY REVIEW for March, 1918 (pp. 81-84).

In this connection also the Government issued a leaflet (H. Q. 7B) entitled "Industrial Councils: the Recommendations of the Whitley Report," giving a brief outline of the principal recommendations of the report, with a view to making them as generally known as possible. Two sections of this leaflet, dealing with "Industrial councils and the

Government," and "The need for industrial councils," were printed in full in the MONTHLY LABOR REVIEW for July, 1918 (pp. 27, 28). Suggestions as to the constitution and functions of joint industrial councils were issued by the British Ministry of Labor and published in the MONTHLY LABOR REVIEW for August, 1918 (pp. 76-79). In addition to the supplemental report on works committees, mentioned above, further data on these committees as a part of the industrial council plan is contained in the report of an inquiry into works committees made by the Ministry of Labor, a review of which appeared on pages 81 to 84 of the August, 1918, issue of the MONTHLY LABOR REVIEW. Some general information as to the progress made in the establishment of joint industrial councils was included in an article in the MONTHLY LABOR REVIEW for August (pp. 80, 81), and an account of the adoption of the plan outlined in the Whitley report by the pottery industry in Great Britain was given in the MONTHLY REVIEW for April, 1918 (pp. 234-236). That the trades have manifested a deep interest in joint industrial councils is indicated by their organization of the Industrial Reconstruction Council, with a view to spreading the gospel of industrial councils and enlisting the interest of employers' associations and trade-unions. An account of this movement appears on pages 64 to 66 of this issue of the MONTHLY LABOR REVIEW.

#### INDUSTRIAL COUNCILS AND TRADE BOARDS.<sup>1</sup>

In order to make clear the relations between industrial councils and trade boards and to suggest certain modifications which the Government believes is necessary before the recommendations of the second report of the committee can be put into operation, the minister of reconstruction and the minister of labor have prepared a memorandum which was issued under date of June 7, 1918, and is here reproduced in full:

1. The proposals contained in the first report on joint standing industrial councils (Cd. 8606) of the Committee on Relations between Employers and Employed have been adopted by the Government. The steps which have been taken to establish industrial councils have enabled the Government to consider the proposals of the second report on joint standing industrial councils (Cd. 9002) in the light of experience. This report, which deals with industries other than those which are highly organized, follows naturally upon the first report of the committee, and develops the line of policy therein proposed. It has not been found possible from the administrative point of view to adopt the whole of the recommendations contained in the second report, but such modifications as it seems desirable to make do not affect the principles underlying the committee's proposal for the establishment of joint industrial councils. They are designed to take advantage of the administrative experience of the Ministry of Labor with regard to both industrial councils and trade boards. In view of the growing interest which is being taken in the establishment of industrial councils and of the proposed extension of trade boards, it appears desirable to set forth the modifications which the Government regard as necessary in putting into operation

<sup>1</sup>Great Britain. Ministry of Reconstruction. Industrial Councils and Trade Boards. Memorandum by the Minister of Reconstruction and the Minister of Labor. Cd. 9085. London, 1918. 4 pp.



the recommendations of the second report, and also to make clear the relations between trade boards and industrial councils.

2. The first report on joint standing industrial councils referred only to the well organized industries. The second report deals with the less organized and unorganized trades, and suggests the classification of the industries of the country into three groups:

*Group A.*—Consisting of industries in which organization on the part of employers and employed is sufficiently developed to render their respective associations representative of the great majority of those engaged in the industry. These are the industries which we had in mind in our first interim report.

*Group B.*—Comprising those industries in which, either as regards employers, employed, or both, the degree of organization, though considerable, is less marked than in Group A.

*Group C.*—Consisting of industries in which organization is so imperfect, either as regards employers or employed, or both, that no associations can be said adequately to represent those engaged in the industry.

The proposals of the committee on relations between employers and employed are summarized in paragraph 20 of their second report as follows:

(a) In the more highly organized industries (Group A) we propose a triple organization of national, district, and workshop bodies, as outlined in our first report.

(b) In industries where there are representative associations of employers and employed, which, however, do not possess the authority of those in group A industries, we propose that the triple organization should be modified, by attaching to each national industrial council one, or at most two representatives of the Ministry of Labor to act in an advisory capacity.

(c) In industries in both groups A and B, we propose that unorganized areas or branches of an industry should be provided, on the application of the national industrial council, and with the approval of the Ministry of Labor, with trade boards for such areas or branches, the trade boards being linked with the industrial council.

(d) In industries having no adequate organization of employers or employed, we recommend that trade boards should be continued or established, and that these should, with the approval of the Ministry of Labor, be enabled to formulate a scheme for an industrial council, which might include, in an advisory capacity, the "appointed members" of the trade board.

It may be convenient to set out briefly the modifications of the above proposals, which it has been found necessary to make.

(1) As regards (b) it has been decided to recognize one type of industrial council only, and not to attach official representatives to the council, except on the application of the industrial council itself.

(2) As regards (c) and (d) the relations between trade boards and industrial councils raise a number of serious administrative difficulties due to the wide differences in the purpose and structure of the two types of bodies. It is not regarded as advisable that a trade board should formulate a scheme for an industrial council, nor is it probable that trade boards for unorganized areas will be set up in conjunction with a joint industrial council.

3. It is necessary at the outset to emphasize the fundamental differences between industrial councils and trade boards. A joint industrial council is voluntary in its character and can only be brought into existence with the agreement of the organizations of employers and workpeople in the particular industry, and the council itself is composed exclusively of persons nominated by the employers' associations and trade-unions concerned. The industrial council is, moreover, within very wide limits, able to determine its own functions, machinery, and methods of working. Its functions in almost all cases will probably cover a wide range and will be concerned with many matters other than wages. Its machinery and methods will be based upon past experience of the industry and the existing organization of both employers and employed. Industrial councils will, therefore, vary in structure and functions as can be seen from the provisional constitutions already submitted to the Ministry

of Labor. Financially they will be self-supporting, and will receive no monetary aid from the Government. The Government proposes to recognize the industrial council in an industry as the representative organization to which it can refer. This was made clear in the minister of labor's circular letter of October 20, 1917, in which it is said that "the Government desire it to be understood that the councils will be recognized as the official standing consultative committees to the Government on all future questions affecting the industries which they represent, and that they will be the normal channel through which the opinion and experience of an industry will be sought on all questions in which the industry is concerned."

A trade board, on the other hand, is a statutory body established by the minister of labor and constituted in accordance with regulations made by him in pursuance of the Trade Boards Act; and its expenses, in so far as authorized by the minister of labor and sanctioned by the Treasury, are defrayed out of public money. The regulations may provide for the election of the representatives of employers and workers or for their nomination by the minister of labor, but in either case provision must be made for the due representation of home workers in trades in which a considerable proportion of home workers are engaged. On account of the comparative lack of organization in the trades to which the act at present applies, the method of nomination by the minister has proved in practice to be preferable to that of election, and in nearly all cases the representative members of trade boards are now nominated by the minister. The employers' associations and trade-unions in the several trades are invited to submit the names of candidates for the minister's consideration, and full weight is attached to their recommendation, but where the trade organizations do not fully represent all sections of the trade, it is necessary to look outside them to find representatives of the different processes and districts affected.

A further distinction between trade boards and industrial councils is, that while industrial councils are composed entirely of representatives of the employers' associations and trade-unions in the industry, every trade board includes, in addition to the representative members, a small number (usually three) of "appointed members," one of whom is appointed by the minister to act as chairman and one as deputy chairman of the board. The appointed members are unconnected with the trade and are appointed by the minister as impartial persons. The primary function of a trade board is the determination of minimum rates of wages, and when the minimum rates of wages fixed by a trade board have been confirmed by the minister of labor, they are enforceable by criminal proceedings, and officers are appointed to secure their observance. The minimum rates thus become part of the law of the land, and are enforced in the same manner as, for example, the provisions of the Factory Acts. The purpose, structure, and functions of industrial councils and trade boards are therefore fundamentally different. Their respective areas of operation are also determined by different considerations. An industrial council will exercise direct influence only over the organizations represented upon it. It will comprise those employers' associations with common interests and common problems; similarly its trade-union side will be composed of representatives of organizations whose interests are directly interdependent. An industrial council therefore is representative of organizations whose objects and interests, whilst not identical, are sufficiently interlocked to render common action desirable. The various organizations represent the interests of employers and workers engaged in the production of a particular commodity or service (or an allied group of commodities or services).

A trade board, on the other hand, is not based on existing organizations of employers and employed, but covers the whole of the trade for which it is established. As the minimum rates are enforceable by law, it is necessary that the boundaries of the trade should be precisely defined; this is done, within the limits prescribed by statute, by the regulations made by the minister of labor. Natural divisions of industry are, of

course, followed as far as possible, but in many cases the line of demarcation must necessarily be somewhat arbitrary. In the case of industrial councils difficult demarcation problems also arise, but the considerations involved are somewhat different, as the object is to determine whether the interests represented by given organizations are sufficiently allied to justify the cooperation of these organizations in one industrial council.

4. The reports received from those who are engaged in assisting the formation of joint industrial councils show that certain paragraphs in the second report of the committee on relations between employers and employed have caused some confusion as to the character and scope of joint industrial councils and trade boards, respectively. It is essential to the future development of joint industrial councils that their distinctive aim and character should be maintained. It is necessary, therefore, to keep clearly in mind the respective functions of the joint industrial council and the trade board, in considering the recommendations contained in the following paragraphs of the second report:

"(a) Paragraphs 3, 4, and 5, dealing with the division of joint industrial councils into those that cover group A industries and those that cover group B industries.

"(b) Paragraph 7, dealing with district industrial councils in industries where no national council exists.

"(c) Paragraphs 10, 13, 15, and 16, dealing with trade boards in relation to joint industrial councils.

"(d) Paragraphs 11 and 12, dealing with trade boards in industries which are not suitably organized for the establishment of a joint industrial council."

5. *Distinction drawn between joint industrial councils in group A industries and group B industries.*—In paragraph 9 of the second report it is implied that the Ministry of Labor would determine whether the standard of organization in any given industry has reached such a stage as to justify the official recognition of a joint industrial council in that industry. It is clear, however, that it would be impossible for the ministry to discover any satisfactory basis for distinguishing between an industry which falls into group A and one which falls into group B. It is admitted in paragraph 9 of the second report that no arbitrary standard of organization could be adopted, and it would be both invidious and impracticable for the Ministry of Labor, upon whom the responsibility would fall, to draw a distinction between A and B industries. The only clear distinction is between industries which are sufficiently organized to justify the formation of a joint industrial council and those which are not sufficiently organized. Individual cases must be judged on their merits after a consideration of the scope and effectiveness of the organization, the complexity of the industry, and the wishes of those concerned.

The experience already gained in connection with joint industrial councils indicates that it would be inadvisable in the case of industries in group B to adopt the proposal that "there should be appointed one or at most two official representatives to assist in the initiation of the council and continue after its establishment to act in an advisory capacity and serve as a link with the Government." It is fundamental to the idea of a joint industrial council that it is a voluntary body set up by the industry itself, acting as an independent body and entirely free from all State control. Whilst the minister of labor would be willing to give every assistance to industrial councils, he would prefer that any suggestion of this kind should come from the industry rather than from the ministry.

The main idea of the joint industrial council as a joint body representative of an industry and independent of State control has now become familiar and the introduction of a second type of joint industrial council for B industries would be likely to cause confusion and possibly to prejudice the future growth of joint industrial councils.



In view of these circumstances, therefore, it has been decided to adopt a single type of industrial council.

6. *District industrial councils.*—Paragraph 7 of the second report suggests that in certain industries in which a national council is not likely to be formed in the immediate future, it might none the less be possible to form one or more "district" industrial councils.

In certain cases the formation of joint bodies covering a limited area is probable. It would, however, avoid confusion if the term "district" were not part of the title of such councils, and if the use of it were confined to district councils in an industry where a national council exists. Independent local councils might well have a territorial designation instead.

7. *Trade boards in relation to joint industrial councils.*—The distinction between trade boards and joint industrial councils has been set forth in paragraph 3 above. The question whether an industrial council should be formed for a given industry depends on the degree of organization achieved by the employers and workers in the industry, whereas the question whether a trade board should be established depends primarily on the rates of wages prevailing in the industry or in any part of the industry. This distinction makes it clear that the question whether a trade board should or should not be set up by the minister of labor for a given industry, must be decided apart from the question whether a joint industrial council should or should not be recognized in that industry by the minister of labor.

It follows from this that it is possible that both a joint industrial council and a trade board may be necessary within the same industry.

In highly organized industries, the rates of wages prevailing will not, as a rule, be so low as to necessitate the establishment of a trade board. In some cases, however, a well-defined section of an otherwise well-organized industry or group of industries may be unorganized and ill-paid; in such a case it would clearly be desirable for a trade board to be established for the ill-paid section, while there should at the same time be an industrial council for the remaining sections, or even for the whole, of the industry or industrial group.

In the case of other industries sufficiently organized to justify the establishment of an industrial council, the organizations represented on the council may nevertheless not be comprehensive enough to regulate wages effectively throughout the industry. In such cases a trade board for the whole industry may possibly be needed.

Where a trade board covers either the whole or part of an industry covered by a joint industrial council, the relations between them may, in order to avoid any confusion or misunderstanding, be defined as follows:

(1) Where Government departments wish to consult the industry, the joint industrial council, and not the trade board, will be recognized as the body to be consulted.

(2) In order to make use of the experience of the trade board, the constitution of the industrial council should be so drawn as to make full provision for consultation between the council and the trade board on matters referred to the former by a Government department, and to allow of the representation of the trade board on any subcommittee of the council dealing with questions with which the trade board is concerned.

(3) The joint industrial council clearly can not under any circumstances override the statutory powers conferred upon the trade board, and if the Government at any future time adopted the suggestion contained in section 21 of the first report that the sanction of law should be given on the application of an industrial council to agreements made by the council, such agreements could not be made binding on any part of a trade governed by a trade board, so far as the statutory powers of the trade board are concerned.

The minister of labor will not ordinarily set up a trade board to deal with an industry or branch of an industry, in which the majority of employers and workpeople are covered by wage agreements, but in which a minority, possibly in certain areas, are outside the agreement. It would appear that the proposal in section 21 of the first report was specially designed to meet such cases. Experience has shown that there are great difficulties in the way of establishing a trade board for one area only in which an industry is carried on, without covering the whole of a trade, though the trade boards act allows of this procedure.

8. *Trade boards in industries which are not sufficiently organized for the establishment of a joint industrial council.*—Section 3 of the Trade Boards Act, 1909, provides that "a trade board for any trade shall consider, as occasion requires, any matter referred to them by a secretary of state, the Board of Trade, or any other Government department, with reference to the industrial conditions of the trade, and shall make a report upon the matter to the department by whom the question has been referred."

In the case of an industry in which a trade board has been established, but an industrial council has not been formed, the trade board is the only body that can claim to be representative of the industry as a whole.

It is already under a statutory obligation to consider questions referred to it by a Government department; and where there is a trade board but no industrial council in an industry it will be suggested to Government departments that they should consult the trade board as occasion requires in the same manner as they would consult industrial councils.

On the other hand, for the reasons which have been fully set out above, industrial councils must be kept distinct from trade boards, and the latter, owing to their constitution, can not be converted into the former. If an industry in which a trade board is established becomes sufficiently organized for the formation of an industrial council, the council would have to be formed on quite different lines from the trade board, and the initiative should come, not from the trade board, which is a body mainly nominated by the minister of labor, but from the organizations in the industry. Hence it would not be desirable that trade boards should undertake the formation of schemes for industrial councils.

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#### INDUSTRIAL RECONSTRUCTION COUNCIL ORGANIZED IN GREAT BRITAIN.

The possibilities of the joint standing industrial council as a method of solving some of the great labor questions upon which depends the proper reconstruction of industry after the war are rapidly becoming recognized. Interest in the creation of such councils from the point of view of the trade is evidenced by the formation in England of the Industrial Reconstruction Council.

The Industrial Reconstruction Council is an unofficial propagandist body established to preach the doctrine of self-government for industry and the reconstruction of industry by the industry itself; the complete organization of every trade, with every man in his union and every employer in his association, and from the two an elected trade parliament in every trade with proper status and adequate powers.

At present the interest of the council is centered in the formation of joint industrial councils this being considered the first step toward

the goal in view. Through literature and newspaper propaganda, lectures, and other public meetings, the Industrial Reconstruction Council is attempting to spread the gospel of industrial councils and enlist the interest of employers' associations and trade-unions. Its work has been recognized by the Government and it is working in close relation with various Government departments.

The council had its origin in a notice which appeared in the press on October 10, 1917, signed by a large number of officers of trade associations and editors of trade papers and others interested in the movement for industrial self-government. This notice reads as follows:

Cooperation between capital and labor is undoubtedly the most urgent industrial question of the day, and many agencies are at work with a view to the establishment of better relations between these two great forces of industry.

An exceptional opportunity now occurs to take a practical step in this direction.

For the duration of the war the Government is directly interested in every branch of trade and industry, and each department of State is in constant touch with manufacturers, trade committees, and associations of all kinds.

The practice of different departments varies considerably. Some set up ad hoc committees for their own purposes, others consult leading experts, others again have appointed joint committees of employers and employed.

In our opinion these innumerable connections between the Government and the trades give an opening which may never occur again to establish the principle of cooperation between labor and capital upon a sure and sound foundation.

Our suggestion is that the Government should adopt the uniform practice in all industrial and commercial matters of consulting only joint bodies representative of both employers and work people's organizations.

In this very simple way the Government has the power to bring about an active cooperation between labor and capital such as many interested parties have desired for some time past.

In our view no industrial or commercial question ought to interest the Government unless it also interests both capital and labor. The union between capital and labor in the discussion of any matter which arose would materially strengthen the position of a trade against unnecessary restrictions, and on the other hand any orders made by the Government on the joint advice of both parties would be more likely to find general acceptance.

Illustrations might be multiplied indefinitely. There must be many hundreds of trade committees in negotiation with different Government departments at the moment, and each case represents an ideal opportunity for practical cooperation between employers and employed. The effect of such a union on these committees should be to spread a different spirit throughout the industrial world.

The opposition to our proposal will probably come chiefly from employers who have not grasped the full significance of the new spirit in industry. As a matter of fact, employers no less than employed have a great deal to gain from such an arrangement. Their position in relation to the Government would be immensely strengthened by the cooperation of labor in matters which many of them have hitherto regarded as outside the scope of joint action.

The opportunity for the course which we suggest will pass with the war, as the relations between the Government and trade are then expected to become less intimate. We therefore press for the immediate acceptance of the following principle:



That any commercial or industrial matter ought not to interest the Government unless it interests both labor and capital, and the consequent adoption of the following policy:

That the Government will undertake to obtain and, wherever possible, accept advice on these matters from bodies equally representative of both labor and capital.

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#### STATUS OF CIVIL SERVICE EMPLOYEES IN GREAT BRITAIN UNDER THE MILITARY SERVICE ACTS, 1916.

A report made to the House of Commons, June 19, 1918, by the Minister of National Service shows the effect of the war upon the civil staff employed by Government departments in Great Britain.<sup>1</sup> The report was made before the Military Service Act (No. 2) of 1918 became effective. It covers practically all persons in direct and continuous employment of any Government department and those employed by admiralty dockyards and outstations, technical officers, etc., engaged on war production.

The total number of employees on August 1, 1914, is reported as 227,276, of which 36,272, approximately 15 per cent, were women. The number reported as being employed on January 1, 1918, was 279,159, of whom 143,907, or 51.5 per cent, were women. This is an increase of 296.7 per cent in the number of women employed. On January 1, 1918, there were 9,125 males under 31 years of age employed.

The post office department, which on August 1, 1914, employed 144,500 men and 32,000 women, at the time of the report employed 78,009 men, a decrease of 46 per cent, and 79,000 women, an increase of 146.9 per cent. During the period 73,000 men were released for war service.

Of the total number of men now employed, including of course the technical officers referred to above, less than 2 per cent are men under 31 years of age fit for general service.

The following condensed table shows the status of civil employees (on Jan. 1, 1918) and the number of men and women employed on August 1, 1914, by departments, considered on the basis of number of employees.

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<sup>1</sup> Great Britain. Ministry of National Service. Civil Staff Employed by Government Departments. London, 1918. 6 pp.

NUMBER AND PER CENT OF MEN AND WOMEN EMPLOYED IN GOVERNMENT DEPARTMENTS, GREAT BRITAIN, ON JAN. 1, 1918, AS COMPARED WITH AUG. 1, 1914, AND NUMBER OF MEN RELEASED FOR SERVICE.

Department.	Number of males employed.		Per cent of decrease.	Number of females employed.		Per cent of increase.	Number of men over military age employed.	Number of boys under military age employed.	Number released for military service. <sup>3</sup>
	Aug. 1, 1914.	At present. <sup>1</sup>		Aug. 1, 1914.	At present. <sup>1</sup>				
Admiralty (Headquarters).....	1,632	4,063	* 149.0	98	4,101	4,084.7	1,736	.....	1,032
Board of Customs.....	9,268	7,724	16.7	21	1,415	6,638.0	3,892	.....	1,652
Ministry of Food, including Royal Commission on Sugar Supply.	(*)	1,053	.....	(*)	3,086	.....	592	44	4
Board of Inland Revenue.....	9,030	4,618	48.9	250	4,549	1,719.6	1,208	475	3,367
Ministry of Labor.....	3,209	2,239	30.2	1,017	3,239	218.5	663	.....	1,376
Ministry of Munitions.....	(*)	6,756	.....	(*)	9,925	.....	3,815	334	522
Ministry of National Service.....	(*)	5,363	.....	(*)	9,811	.....	1,927	126	613
Ministry of Pensions.....	(*)	301	.....	(*)	5,313	.....	159	.....	35
Post Office.....	144,500	78,009	46.0	32,000	79,000	146.9	45,000	6,281	73,000
Board of Trade.....	2,614	3,049	* 16.6	15	1,842	12,180.0	1,628	401	1,033
War Office.....	1,445	4,932	* 241.3	156	9,665	6,095.5	2,791	705	1,727
All others.....	19,306	17,145	11.2	2,715	11,961	340.6	10,572	406	8,222
	191,004	135,252	29.1	36,272	143,907	296.7	73,983	8,772	92,583

<sup>1</sup> It is inferred from the report that this refers to Jan. 1, 1918.

<sup>2</sup> Under the military service acts, 1916.

<sup>3</sup> Increase.

<sup>4</sup> Department formed since the outbreak of war.

As already noted the number of women employed in the service as a whole increased approximately 300 per cent. In the departments organized during the War women employees far exceed the number of men employed. For the entire service the number of women employed is 6.4 per cent greater than the number of men.

Many of the older departments have been compelled to expand to meet special conditions. The post office is an exception. In this department the number of employees decreased in number from 176,500 on August 1, 1914, to 157,009 on January 1, 1918. During this period the number of women employees was increased by 47,000.

## PROVISION FOR THE DISABLED AND FOR VOCATIONAL EDUCATION.

### ECONOMIC ASPECTS OF THE DISABLED SOLDIER PROBLEM WITH PARTICULAR REFERENCE TO CANADA.

BY MRS. M. A. GADSBY.

From the point of view of the State the basic reason for the rehabilitation of disabled soldiers is economic. Every man who is a productive unit is an asset to the State. One hundred per cent efficiency for the man is the goal most desirable from the point of view of both the man and the State. Physical rehabilitation and reeducation are decisive factors in the disabled man's equipment to meet life as affected by his disability, but it is his final placement in the most suitable job which determines the use of that equipment and to a considerable degree his economic success.

Before describing in detail Canadian placement methods, it may be helpful to summarize briefly some of the factors which influence the economic success of the disabled man.

1. Changes in the industrial world have taken place so rapidly since the beginning of the War that conditions which the soldier left upon his enlistment are almost certain to be found to be changed upon his return to civilian life. Therefore, in order to choose for the disabled men occupations which will endure in the future, it is necessary that the economic situation both before and since the outbreak of the War and the future stability of industry be understood. Such knowledge must also be localized. This is the aspect of the returned soldier problem which has been least successfully handled in all the belligerent countries.

2. After a man has been trained in the occupation in which he can be most efficient, in the light of his previous training, education, and experience, his disability, and his aptitudes, there is still to be considered the employer, the job, and the fellow workman. The man must have the cooperation of his comrades and the interest of his employer; he must keep up standards of labor which are commensurate with the public interest.

3. Disabled men must be placed in occupations in which they can earn a living. The dearth of man power in the country demands a supply of certain kinds of workers, but disabled men must be trained not only in trades which meet the present need but also in trades



in which they can hold their own after public sentiment has ceased to demand their indulgence and they are forced to compete on equal terms with the able-bodied.

4. The geographic location of the job must be considered. A man whose home and associations are in one district is often unwilling to move to another community if employment is obtainable in his home district. A detailed knowledge of the employment situation in each district is therefore necessary.

5. Length and type of training must be considered. Just enough training to get a man a job under present abnormal conditions is not sufficient. His equipment for the job must be such as will gain the cooperation of his employer, his fellow workers, and organized labor. Care must also be taken that the training given is not for trades or processes too highly specialized. This would limit the interest of the work and the number of concerns where jobs are available, and would place a man already handicapped by his disability more or less at the mercy of a few employers.

6. Under the workmen's compensation acts the employment of disabled men constitutes an increased risk to the employer not only on account of the increased liability of the man himself to injury, but on account of the greater risk to other employees and to the equipment of the plant. Until definite steps are taken to protect the employer from this extrahazardous risk, discrimination against disabled men will continue and they will be still further handicapped in their search for jobs.

Canada has prepared for such difficulties of readjustment by the creation of the Invalided Soldiers' Commission, and the provincial soldiers' aid commissions.

The Invalided Soldiers' Commission, formerly the vocational branch of the Military Hospitals Commission, is a branch of the new Department of Soldiers' Civil Reestablishment, which was created in February, 1918. The commission is charged with the vocational education and other requisite training for civil life and the employment of disabled officers and men discharged from the Canadian Expeditionary Forces.

The provincial soldiers' aid commissions were set up in 1915 by the provincial governments, at the behest of the Dominion Government, to deal with the question of employment of returned men.

#### INDUSTRIAL SURVEY AND EMPLOYMENT WORK OF THE INVALIDED SOLDIERS' COMMISSION.

The Invalided Soldiers' Commission attempted to utilize technical school courses for the reeducation of disabled men, but the number of courses available was limited to a few trades and occupations and resulted in the training of too many men in those trades. It was there-

fore considered advisable to increase the training facilities by placing the men in the industries themselves for a part of their training, at the same time bridging over the awkward gap between training and actual working conditions, which has been found to be particularly precarious for returned men. This course necessitated an intensive survey of the industry, not only to determine the number of vacancies, but to determine possible further openings in the trades which would be suitable for handicapped men. Technical schools are now used largely for preliminary training to familiarize the man with tools, etc. After 3 to 5 months of such training men are placed in shops and complete their training in the environment in which they will work. This plan has helped to solve the question of employment of reeducated men. They are usually absorbed by the industry in which they are trained. In some localities men have been placed with firms and concurrently with this experience they receive part time or night class instruction. In Calgary, Alberta, 8-month courses have been introduced in which the first 6 months is spent half in school and half in industry and the last two months entirely in the shop.

Placing men in industry necessitates: (1) Discrimination in the selection of firms to which the men are assigned to insure the careful training of the men. (2) Specific arrangement with each firm as to the training to be received and the degree of efficiency to be attained before the completion of the course. (3) Proper supervision of the men under training to see that they are carrying out their part of the contract. (4) Arrangements with the trade organization, in case he is being trained in a trade which is organized, which will insure each man's welcome into the trade by his fellow employees. (5) Supervision in order to maintain standards commensurate with public safety and the efficiency and welfare of each man, in case he is placed in a trade which is not organized. (6) Supervision of the general working conditions in the factory in which the man is finally absorbed. The majority of Canadian authorities have realized these necessities and the industrial surveys have proved a successful instrument in helping to bring about desirable results.

The officers making the surveys are for the most part returned men with technical education and a knowledge of industry. The policy of the Invalided Soldiers' Commission is to employ returned men so far as possible particularly in those positions which necessitate direct contact with the men. It is considered that returned men are best able to understand the difficulties of the disabled man and to meet him on his own ground. The training of these surveyors included visits to hospitals and convalescent homes to familiarize them with the disabilities and the handicaps of the men. They then made them-

selves thoroughly conversant with the equipment, courses of study and methods of instruction of the reeducation schools. Several model surveys were first made under the direction of trained survey officers at Ottawa, and the first surveys made in the Provinces were made under the personal supervision of the head surveyor. It was found that short intensive surveys of the occupations or processes which can be done by disabled men were best adapted to the purpose at hand.

The initial contact with the industry is made with the general manager, whom the surveyor visits and to whom he explains the purpose of the work and the policy of the Invalided Soldiers' Commission in placing the employer under no financial obligation, asking only that the man receive thorough training in return for his services. In 90 per cent of the cases no difficulty has been met on the part of employers. The surveyor is usually introduced to the works superintendent who takes him over the plant, explaining operations. A survey is made of each department and a complete list of processes involved in each occupation, with a detailed description of the physical demand of each, the training and experience necessary, the disability which each occupation would permit, and the number of men who could be placed. The following forms serve as a practical guide for the surveying officer.

## SHEET A.

..... 19....

## MILITARY HOSPITALS COMMISSION.

VOCATIONAL BRANCH, 22 VITTORIA STREET, OTTAWA.

Industrial survey for determining the openings for training disabled soldiers in industries.<sup>1</sup>

City..... Unit.....  
 Firm name.....  
 Street.....  
 Manufacturing.....  
 General manager.....  
 Treasurer.....  
 Superintendent.....

Foreman.	Department.	Section sheets.
.....	.....	.....

..... Vocational officer. .... Investigator.  
 Easiest way to reach factory.....

M H. C. Form 159.

<sup>1</sup> Separate forms are made out for each occupation.



## SHEET B.

Division of labor. Nature of job. Classification of grades in various divisions of labor and permanency of employment taken from the pay roll and information obtained from the chief officers of the concern.

Division of labor..... Foreman.....  
 Number employed..... Disabled workers.....  
 Rate per day or hour..... Hours worked.....  
 First class..... Second class.....  
 Nature of job.....  
 Training needed..... Time to train.....  
 ..... Could place.....  
 How acquired.....  
 Work most closely related.....  
 Advanced from..... Advanced to.....  
 Experience needed.....  
 Tools used.....  
 Could a start be made in a school.....  
 Education given in school.....  
 Equipment for school.....  
 .....  
 (Date of Survey.) ..... Investigator.

M. H. C. Form 151.

## SHEET C.

....., 19.....

## MILITARY HOSPITALS COMMISSION.

VOCATIONAL BRANCH, 22 VICTORIA STREET, OTTAWA.

General class of disability.	Could do this work having—
Lung wounds.....	.....
Lung diseases.....	.....
Head.....	.....
Neck.....	.....
Ear.....	.....
Eye.....	.....
Shell shock.....	.....
Hernia.....	.....
General debility.....	.....
Abdomen.....	.....
Alimentary canal.....	.....
Kidney.....	.....
Skin.....	.....
Miscellaneous.....	.....
Leg.....	.....
Toes.....	.....
Arms.....	.....

M. H. C. Form 152.

From these forms the report is written in detail. The data are carefully indexed and tabulated. This information is very helpful to the disabled soldiers' training board in deciding whether or not a disabled man should be advised to take training in the occupation he has chosen, and is essential for the placement officer in finding the job when the retrained man is ready for industry.

Each Province makes its own surveys and sends copies of them to Ottawa. In Toronto alone, since the first of the present year, over

100 representative industrial plants have been surveyed, including some of the largest in Canada. The aim is to make a complete survey of industry throughout the Dominion, such information being considered invaluable as a preparation for demobilization.

The system of putting men out in the factory for a part of their training involves the finding of a definite position by the industry for the man in that industry, and it has come about that the survey officer, or, in the larger centers, a special officer appointed for the purpose acts as replacement officer for reeducation cases. A list is kept of the firms surveyed and the kind of men they will take. When a disabled man is ready to complete his course in industry, a suitable firm is interviewed by the placement officer and asked to take him. The man is sent with a letter or personally conducted by the placement officer to the firm desiring his services. For the remainder of his training course he receives the regular pay and allowances granted by the State through the Invalided Soldiers' Commission<sup>1</sup> and the employer is under no obligation to pay him. If at the end of the course which has been planned, the report is that the man needs more training, he usually gets it. It was said that often men are progressing so well in their courses at the end of six or eight months' training it is unwise to limit the courses to any definite period. In most cases men so placed are absorbed by the shop.

Realizing the restlessness of the returned men and the difficulty with which they become readjusted to industrial life, the commission has arranged that the return to industry be gradual. In reeducation schools men work from 9 to 12 a. m. and 2 to 5 p. m., if their strength permits. The number of hours is gradually lengthened until they are ready to complete their training in industry, when they are required to work the hours usual in the trade, if able; otherwise special arrangements are made with the employer.

A weekly report of men placed is sent to Ottawa from each vocational branch office of the Invalided Soldiers' Commission. This report includes data concerning the course each man is taking, the firm with which he is placed, the kind of work he will be required to do, the wages he is to receive, and whether the placement is probationary or permanent.

Twenty per cent of the returned men are cases for reeducation. Of this number 10 per cent are able, with training, to return to their previous jobs; the other 10 per cent are trained for new occupations. The statement was made in Winnipeg that 60 per cent of the men get their own jobs, and that it is almost entirely the men without previous

<sup>1</sup> Men undergoing training receive an allowance equal to the amount of the regular total disability pension. For a single man the allowance is \$50 per month. If subsistence is given by the Invalided Soldiers' Commission a deduction of \$30 per month is made. Allowance for married men is \$38 per month and \$35 to the wife. Seven dollars extra is allowed for the first child and additional graded allowance for each additional child. Upon his satisfactory completion of the course each man is given one month's pay as a bonus.

education who are placed by the commission. In that city from January to June of the present year, 171 men were placed in industry by the vocational branch of the Invalided Soldiers' Commission. In Toronto from January 1 to May 30, 1918, over 200 men were placed by the survey department for training directly in the factory or shop, and over 30 were taking half time in the industry and half time in the commission's classes at Toronto University. Twelve were graduated within that time, 8 of the 12 were absorbed by the industry in which they were trained, 3 were placed to advantage by the men who trained them. The twelfth man found indoor work too confining and was profitably employed as motor truck driver.

It is also the duty of the placement officer to visit the man while he is finishing his course in the shop. In many of the centers this is done once a week. The officer notes the sanitary conditions under which the man is working, the suitability of the work for a man so disabled, and determines whether or not he is being properly trained. He observes the relation of the man to the other workmen, finds out whether or not the man is satisfied and makes any adjustments necessary. The foreman is interviewed and the man's regularity of attendance and progress, and his chances of success in the trade are ascertained. The placement officer sees that the relation between the foreman and the man being trained is a cordial one and that the man is being fairly treated, but not pampered.

In case the work is unsuitable, it is sometimes necessary to transfer the man to another course, or to another shop. In Toronto, 15 per cent at most change their courses. After the course has been completed and the men have been absorbed, they are occasionally visited and any troubles that have arisen adjusted, if possible. A "follow up record" of each reeducation case is sent each month to Ottawa until the man is definitely settled in a position.

In case the man is ill during the time he is undergoing training in the factory, he must report that fact to the commission and a doctor is sent him free of cost. The commission notifies the firm of the reason for the man's absence. In case he is absent without reason, his pay for that time is withheld and allowances to his family for the period are stopped.

The plan is to appoint a trained nurse and industrial service worker in connection with this work, to look after the man's home conditions and to see that his home influences do not retard his progress.

#### SOLDIERS' AID COMMISSIONS.

The general question of employment in Canada has been treated as a provincial matter, and provincial commissions known as Returned Soldiers' Commissions have been set up in each of the Provinces to supervise the employment of returned men. The employment



organization of the Invalided Soldiers' Commission previously described deals with the employment of reeducated men. The system of putting men out into factories for a portion of their training involves the finding of a definite position by the industry for the man in that industry, and the vocational officer or the survey officer of the Invalided Soldiers' Commission therefore acts as replacement officer for reeducation cases. This arrangement leaves to the Soldiers' Aid Commission the duty of finding jobs for men who are not eligible under the provisions of the law for reeducation.<sup>1</sup> As it actually works out, however, some of the men who are eligible for reeducation refuse the privilege and it therefore falls to the soldiers' aid commissions to find jobs for some disabled men also.

The soldiers' aid commissions were appointed on the advice of Ottawa, but no plan for their development was set forth by the Dominion Government, and Ottawa in no way controls the policy of the commissions. In consequence, the commissions have developed differently in the several Provinces. In Ontario, for example, the soldiers' aid commission has supervision of the provincial technical schools, in which some of the reeducation work is being carried on. This arrangement complicates the work somewhat.

Reports of the men on the Soldiers' Aid Commission records and of their disposal are sent to Ottawa each month. Following is the report of the Manitoba Returned Soldiers' Commission for the month of May, 1918:

#### MANITOBA RETURNED SOLDIERS' COMMISSION.

Report to May 30, 1918.

##### MEN ON PROVINCIAL SECRETARY'S RECORDS.

##### A. C. E. F. men returned from overseas:

1. Returned to Canada medically unfit.....	5,650
2. Recalled for duty (military).....	
3. Recalled for duty (civil, i. e., munitions, farming, etc.).....	
4. Compassionate grounds to complete studies, bandsmen, and no record. ....	
5. Stoppage of working pay.....	

Total overseas C. E. F.....

B. Sundry overseas men, reservists, eximperialists, naval ratings, etc..... 25

C. C. E. F. men not been overseas.....

D. Royal Flying Corps from Canadian or American camps.....

Total number of men on records..... 5,675

<sup>1</sup> This does not mean that the 80 per cent of the returned men who are not eligible for reeducation are all placed by these commissions. Some of the men find their own jobs, and some are placed by other agencies. The actual placement problem of these commissions, however, is greater than that of the Invalided Soldiers' Commission.

## DISPOSAL OF ABOVE MEN.

A. At convalescent homes and hospitals under department of militia and defense:	
1. Men returned from overseas.....	696
2. Men not been overseas.....	
3. Diverted to other Provinces for treatment.....	2
Total undischarged undergoing treatment.....	698
B. Discharged men at convalescent homes, sanatoria, etc., under Invalided Soldiers' Commission:	
1. Men returned from overseas.....	
2. Men not been overseas.....	
3. Diverted to other Provinces for treatment.....	
C. Returned to civil employment:	
1. Men returned from overseas.....	
2. Men not been overseas.....	2, 658
Included in above are—	
Men who have returned to positions with former employers.....	261
Men who have returned to own business, etc.....	3
	264
Employed by Federal Government—	
Former positions.....	28
New positions.....	163
	191
Employed by provincial government—	
Former positions.....	18
New positions.....	49
	67
D. Returned overseas men still on military-duty.....	707
E. Applications from discharged men for work not yet filled.....	14
F. Discharged men taking reeducation courses.....	417
G. Discharged men who have not yet applied for assistance.....	659

## REMARKS.

Local employment committees of the soldiers' aid commissions have been appointed throughout the Provinces. In Ontario such a committee exists in practically every district from which 10 men have enlisted. There are now 133 branch offices in that Province. These local committees draw up their own constitutions and appoint their own officers, but they are responsible to the central office of the provincial commission to which they report each month. A branch inspector is appointed for each military district in the Province. These provincial commissions depend very largely upon voluntary assistance. In Manitoba, for example, there are 301 branch offices and there is but one paid officer outside the main office at Winnipeg. This fact coupled with the lack of funds handicaps the work of these committees considerably.

The method of procedure of the soldiers' aid commissions in finding jobs for returned men differs somewhat from that of the Invalided Soldiers' Commission. In Ontario the members of the Canadian Manufacturers' Association were circularized and asked to state the name, salary, and occupation of men who had enlisted from their establishments and whether or not such men would be reinstated either in their previous employment or another upon their return. There are now on file in the Ontario employment office of the soldiers' aid commission records of practically all employers of labor in the Province who have lost men through enlistment, stating that they are willing to take back such men in their employment.

Each provincial office makes its own surveys through what is called an "outside service." In the city of Toronto there are two outside service workers who each day visit employers in a given area and report the number of men employed, the processes involved in the industry, the number of jobs available, the conditions in the factory, etc. The plan is to eventually analyze all the jobs in the district. This information is not written up in survey form but is indexed by trade. Under the heading "Gas fitters," for example, there is listed information concerning establishments employing men for such work. This information includes the name and address of the employer, his telephone number, the name of the employment manager, the wages paid, and the conditions of employment. This list is used for locating jobs for applicants. Another file is kept which lists the men returned by trade and by disability. Here also is filed information as to the prewar occupation and prewar wage of each man.

An attempt is made immediately to place every man who makes application at the office. After he is placed members of the visiting staff call upon him from time to time and aid him in making any adjustments necessary to his suitable placement. It is often the case that several jobs are found for the same man before he is satisfactorily placed. A spirit of restlessness seems to be characteristic of the returned man and many employers complain that they are "no good." It is easy perhaps to overlook the fact that it has taken a year to train a man to become a soldier and it is to be expected that it will take a few months to reaccustom him to civilian life. Because of their better understanding of this attitude of mind, the soldiers' aid commissions are also using returned men so far as possible for the survey and placement work.

#### OTHER FUNCTIONS OF THE SOLDIERS' AID COMMISSIONS.

The soldiers' aid commissions do a great deal of relief work among the soldiers' families. Because of their close contact with the men they are often able to adjust grievances which the soldier or his family may have because of delayed pensions or allowances, thus preventing



a great deal of dissatisfaction and unrest. In Ontario references to casualties or anything affecting the soldier or his family are clipped from the papers each day and a member of the visiting staff of the soldiers' aid commission calls upon the family to offer any assistance possible.

These commissions and their local committees are informed from the point of debarkation of the intended arrival of each discharged man, and it is through them that the friends of returned men are informed of their arrival. Upon a man's arrival in the Province, he is sent a letter of welcome and a form to fill out in case he desires employment or aid of any sort from the soldiers' aid commission.

It is obvious that a duplication of work resulted in the placement and survey work of the Invalided Soldiers' Commission and the soldiers' aid commissions. Both were surveying the same establishments, and in a few cases both found jobs for the same man. This duplication has been the subject of two conferences at Ottawa and plans for closer cooperation have been made. Under the present arrangements, when a man enters upon a course of reeducation the district vocational office of the Invalided Soldiers' Commission notifies the secretary of the provincial soldiers' aid commission of the fact and states the length of the course. One month before the course is completed the district vocational office will notify the secretary of the soldiers' aid commission (the local provincial commission) whether or not the district vocational office has a position for the man. If he has a position in view, he will name it. If no position is in sight, the secretary of the soldiers' aid commission will endeavor to place the man.

The principal criticism of the provincial soldiers' aid commissions seems to be that they do not fit men, that their object is to find them jobs regardless of their suitability. It must be remembered, however, that these commissions are very badly handicapped by lack of funds and an adequate force to accomplish their colossal task. They place many more men than the other agencies doing the same work and are largely dependent upon voluntary assistance.

#### OTHER AGENCIES PLACING RETURNED MEN.

There are also other agencies which are placing returned men. The Great War Veterans' Association, an enthusiastic and growing organization of the veterans of the present war, is actively engaged in placement work. In some localities they say that they feel that this placement work should be done entirely by returned soldiers, since the men in these associations would better understand the psychology of the returned man. In Alberta overlapping on this account is obviated because the secretary of the soldiers' aid commis-

sion is also secretary of the Great War Veterans' Association for that Province.

The regular provincial employment offices, set up to deal with civilian employment, are placing soldiers who apply to them for jobs. These agencies were purely provincial and in no way coordinated until the recent passage of the Dominion Employment Offices Coordination Act. This act authorizes and empowers the minister of labor—

- (a) To aid and encourage the organization and coordination of employment offices and to promote uniformity of methods among them;
- (b) To establish one or more clearing houses for the interchange of information between employment offices concerning the transfer of labor and other matters;
- (c) To compile and distribute information received from employment offices and from other sources, regarding prevailing conditions of employment.

The act also provides for the appropriation of the Dominion money to the extent of \$100,000 for the fiscal year 1919 and \$150,000 for each succeeding fiscal year, this money to be allotted "in the proportion which their expenditure for the maintenance of employment offices bears to the total of the expenditures of all the Provinces for such purposes, but in no case shall the allotment to any Province exceed one-half the amount expended for the maintenance of employment offices by such Province." What effect this act will have upon the existing employment situation in Canada is hard to determine. It will be incumbent upon the Provinces themselves to decide whether or not advantage will be taken of it.

The Khaki Club, an organization which has sprung up in eastern Canada since the war, is doing free of charge to the soldiers a work similar to that which is being done by the Young Men's Christian Association, and includes an employment office in its functions.

Placement work is comparatively simple now, when the public is still stirred by the patriotism of these men and the demand for labor is acute, but demobilization will give the problem a graver aspect, and it is felt that there must be a central organization to deal with it.

The new employment act, the feeling of the war veterans that they should do the work for themselves, the growing political power of these veterans, and the several organizations already at work on the replacement of returned men make the situation a very complicated one.

The Province of Alberta has formulated an interesting plan for dealing with the problem of demobilization. In brief, the plan is to organize a central office with three branches: (1) Placement of re-educated men; (2) placement of men returned to prewar occupations; (3) civilians. The man in charge of placement of reeducated men is to be assigned from the vocational office and is to keep in close touch with the Invalided Soldiers' Commission.

## THE TRADE-UNIONS.

As to the matter of cooperation with organized labor some difficulty seems to have been met owing to the fact that the Invalided Soldiers' Commission has no definite policy with regard to gaining the cooperation of labor organizations.

Employers have to be circularized and visited, and they are cooperating, not only because of their need for workers but also because of their interest in the work.

No attempt seems to have been made in some of the eastern Provinces to obtain the cooperation of any of the unions as organizations. The unions seem willing to cooperate, however, and in some of the western Provinces a very good feeling exists between the unions and the Invalided Soldiers' Commission. In Manitoba the practice is to consult the union in case a man is to be trained in an organized trade and when his training is over he is absorbed by the organization. Here also members of the unions sit on the Disabled Soldiers' Training Board and assist the returned man in his choice of a vocation.

## WORKMEN'S COMPENSATION ACTS.

Difficulty has already been met in placing disabled men, because of the workmen's compensation acts. From the accident compensation standpoint injuries sustained by physically defective workmen are more serious than similar injuries sustained by normal workmen and the accident or insurance costs to employers are increased. One of the Canadian railway systems refuses to take men after their training is complete until steps have been taken to protect the employer in case of second injury. A commission at Ottawa has been at work on the problem of insurance risk and has made a report to the Dominion Government. It is expected that action will soon be taken to improve the existing situation.

## OUTPUT AND WAGES.

There is no statistical data available as to the effect of the employment of disabled men on output. It is generally felt that in most cases if a returned man is trained in a suitable occupation he will be able to compete on equal terms with the able bodied.

Retrained men are in practically every case receiving wages higher than their prewar wages. Just how far the present abnormal demand for labor and the choice of occupation affect wages it is difficult to determine. Both the Invalided Soldiers' Commission and the provincial soldiers' aid commissions are taking care that returned men receive the wages standard in the trade.



**DISCRIMINATION AGAINST EMPLOYMENT OF WAR CRIPPLES.**

Under the Federal Vocational Rehabilitation Act the training and reemployment of disabled soldiers and sailors becomes the duty of the Federal Board for Vocational Education. One of the principal problems confronting the board is that of securing employment for these men under fair and reasonable conditions. For the purpose of securing information and suggestions regarding these problems, an informal conference of the Federal board with representatives of State compensation commissions and casualty insurance companies was held in Washington, D. C., July 26, 1918. The discussion, however, was not limited to military cripples. Particular emphasis was laid upon the desirability of including the industrially disabled in whatever replacement system was finally adopted for disabled soldiers. In other words, the military rehabilitation hospitals, vocational training schools, and so on, should be established with the view of extending their activities into the industrial field and to be utilized for industrial purposes after the war.

The main discussion centered about the question of discrimination against the employment of handicapped men—to what extent this discrimination was due to the extrahazardous character of crippled men and by what methods such discrimination could be best prevented. It was freely admitted, and a recent investigation of the United States Bureau of Labor Statistics<sup>1</sup> substantiated the fact, that the present industrial handicap of disabled men is a serious problem. In normal times many employers refuse to employ even their own industrial cripples, and few will employ such men if injured in other establishments. The very fact that men are crippled, irrespective of their worth or ability, closes the door of opportunity against them. At present, however, because of patriotic sentiments and scarcity of labor, replacement of handicapped men will not be difficult. But the future welfare of our military and industrial cripples should not be dependent upon such uncertain factors as patriotism and labor supply.

While there was substantial agreement in the conference that the employment of handicapped men affected adversely the plant output and processes of production, there was a wide divergence of opinion as to the extent such men increased the accident hazard either to themselves or to their fellow employees. No statistical evidence was presented in substantiation of either point. From the accident compensation standpoint, however, injuries sustained by physically defective workmen are more serious than similar injuries sustained by normal workers and the accident or insurance costs to employers or

<sup>1</sup> See article on "What becomes of men crippled in industry," in MONTHLY LABOR REVIEW for July, 1918, pp. 32-49.

insurance carriers would be increased.<sup>1</sup> The number of such accidents, however, as compared with the total, is practically negligible. Moreover, the increased accident cost would in time be reflected in raising the general level of insurance premiums. From the insurance standpoint, therefore, the employment of physically defective men would present no special problem, provided such men were distributed uniformly among the various industries. But this does not hold true as regards self-insured employers, because in such establishments there is a greater and more direct connection between accidents and compensation or insurance cost. There is a decided tendency among self-insurers, through their system of physical examination, to discriminate against handicapped men. In Pennsylvania employers under the compensation act, before they are granted the privilege of carrying their own risk, are required to agree not to discriminate against the employment of cripples, foreigners, and so on.

Several methods were suggested by means of which this discrimination might be eliminated or at least minimized. The New York plan received favorable consideration. Under the compensation act of this State the liability of an employer for a second major disabling injury is limited to the liability resulting from that particular injury without reference to any prior disability. Compensation for the remaining disability is paid out of a special fund, which could be charged to the industry as a whole. Thus from the compensation viewpoint the extra-hazard element inherent in a handicapped man would be eliminated and one factor of discrimination removed. This would require amendatory legislation on the part of every State.

Another plan suggested provides that the Federal Government shall pay the entire costs of compensation for injuries, including those subsequently sustained in civil life as well as those sustained in the military service. It is maintained that the Government is responsible not alone for injuries arising directly from the war, but for all subsequent risks which result from such injuries. Thus the costs resulting from a disabled soldier's decreased reemployability, reinsurability, and productivity grow out of his military service and consequently are a proper charge upon the Federal Government. Such a plan would place a premium upon the employment of these crippled men and would eliminate any fear of discrimination. It has the further advantage of not being dependent upon State compensation laws.

The necessity of a general and decided increase in the compensation scales of our State and Federal workmen's compensation acts was particularly emphasized. It was pointed out that in none of the existing laws was the scale of benefits commensurate with the eco-

<sup>1</sup> For a discussion of this problem see article on "The problem of the handicapped man in industry," in MONTHLY REVIEW for March, 1913, pp. 87-92.

conomic losses sustained by reason of industrial or military injuries. Adequacy of compensation benefits should be earnestly considered in conjunction with the whole reemployment and rehabilitation problem.

### OCCUPATIONAL OPPORTUNITIES FOR HANDICAPPED MEN IN THE PRINTING TRADES.

In view of the present demand for information concerning occupational opportunities for handicapped men in the various industries, the following table describing the processes and requirements in the several occupational branches of the printing trade is of particular interest. This table was prepared by the American Type Founders' Co., of Jersey City, N. J. The schedule also shows the relative loss of efficiency resulting from various types of injuries in each occupation. The percentages given represent the personal opinion of the superintendent based upon an experience of 23 years as a practical printer, publisher, and editor, and are not the result of a statistical study.

PERCENTAGES OF LOSS OF EFFICIENCY RESULTING FROM VARIOUS TYPES OF INJURIES IN PRINTING OCCUPATIONS, COMPUTED BY AMERICAN TYPE FOUNDERS CO. OF JERSEY CITY, N. J.

Printing occupations.	Loss of—					Nature of work.
	Sight.	Hear- ing.	One arm.	One leg.	Both legs.	
	P. ct.	P. ct.	P. ct.	P. ct.	P. ct.	
Estimators.....	50	25	50	2	10	Figuring costs of materials and time and furnishing prices on printing. Loss of efficiency due to loss of one arm, one leg, or even both legs is comparatively slight.
Layout men.....	100	10	50	2	10	Planning jobs and advertisements. Ability to write, draw, and design is necessary. Not required to stand or to move around in search of materials. Loss of efficiency due to loss of one leg or both legs comparatively slight.
Job compositors.....	100	5	75	5	25	Setting type of various sizes and faces. Requires considerable moving around. Loss of efficiency due to deafness or loss of one leg almost negligible. Loss of one arm or both legs would almost incapacitate for this work.
Proof readers.....	100	10	2	2	2	Detecting errors in the product of printers. Requires thorough grounding in essentials of grammar, spelling, and structural English. Does not require moving around. Loss of efficiency due to deafness is considerable, as proof reader requires a copy reader. Loss of one arm, one leg, or both legs would decrease efficiency only slightly.
Stone hands.....	100	2	100	25	100	Makes up and locks up forms of type. Requires much standing and moving around. This work could be done by a deaf person or one who had lost one leg. Could not be done by one who had lost sight, one arm, or both legs.
Foremen, composing room.	100	10	10	1	50	Supervisory in character. Could be done by deaf, one-armed, one-legged, or legless person.
Foremen, pressroom....	100	15	50	1	50	Supervisory in character. Could be done by deaf, one-armed, one-legged, or legless person.
Linotype operators.....	100	5	75	10	20	Similar to operating typewriter. Workman is enabled to sit down. Work could be done by deaf, one-legged, or legless man.
Platen pressman.....	100	10	60	90	100	Making ready jobs on small presses. Workman required to stand and use both hands. Could be done by deaf or one-legged person.



PERCENTAGES OF LOSS OF EFFICIENCY RESULTING FROM VARIOUS TYPES OF INJURIES IN PRINTING OCCUPATIONS, COMPUTED BY AMERICAN TYPE FOUNDERS' CO., OF JERSEY CITY, N. J.—Concluded

Printing occupations.	Loss of—					Nature of work.
	Sight.	Hear- ing.	One arm.	One leg.	Both legs.	
	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	<i>P. ct.</i>	
Cylinder or automatic pressman.	100	10	60	90	100	Making ready jobs on cylinder or automatic presses. Great skill required. Workman required to stand and use both hands. Could be done by deaf or one-legged person.
Web pressmen.....	100	10	100	90	100	Operating newspaper presses. Deaf person could do the work, but with a loss of efficiency. Loss of sight or one limb would prohibit doing work of this character.
Printing salesmen.....	75	5	5	5	100	Soliciting printing business and submitting estimates. Could be done by a person losing hearing, one arm, or one leg.
Proprietor.....	50	1	10	2	10	Executive work. Could be done by person losing hearing, one arm, one leg, or both legs.
Straight-matter com- positors (hand).	100	2	75	5	10	Setting plain reading matter, usually on country newspapers. Deafness or loss of one leg would not lower efficiency. Loss of both legs would not materially reduce capacity for production, but would reduce efficiency owing to necessity of requiring assistance in moving about.
Feeders (platen).....	100	2	100	10	25	Placing sheets of paper in press and removing same after being printed. Requires both arms and hands. Deafness or loss of one leg would not decrease efficiency. Loss of both legs would reduce efficiency owing to necessity of requiring assistance in moving to and from press.
Feeders (cylinder).....	100	2	185	5	25	Requires skill in placing large (usually) sheets of paper to guides previous to being printed. Deafness or loss of one leg would not decrease efficiency. Loss of right arm would prove a hindrance, but work could be successfully performed if left arm is retained. Loss of both legs would decrease efficiency to a great extent unless a seat attached to press (which can be easily done) is provided.
Paper cutters.....	100	2	100	20	100	Requires the cutting of paper on either a hand-lever or power paper cutter. Both hands are required. Deafness would not decrease efficiency. Loss of one leg would decrease efficiency slightly. Loss of both legs would incapacitate.
Average loss of efficiency.....	93	7	60½	25	50	

<sup>1</sup> If left arm is retained. Loss of left arm would cause a 90 per cent loss of efficiency.

In this connection it may be of interest to present for some of the same occupations the permanent disability ratings computed by the California Industrial Accident Commission and used by them for determining workmen's compensation awards. The California ratings vary with the age of the employee. The percentages given in the following table represent the probable loss of earning capacity of a man 35 years of age.

PERMANENT DISABILITY RATINGS FOR VARIOUS INJURIES IN PRINTING OCCUPATIONS COMPUTED BY INDUSTRIAL ACCIDENT COMMISSION OF CALIFORNIA.

Occupation.	Loss of—				
	Sight.	Hearing.	Major arm.	One leg.	Both legs.
	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
Compositor.....	100.0	34.0	60.3	39.0	79.3
Linotype operator.....	100.0	34.0	60.3	39.0	79.1
Pressman, web.....	100.0	39.0	54.0	52.1	91.3
Pressman, other.....	100.0	39.0	54.0	44.0	89.2
Press feeder.....	100.0	39.0	54.0	44.0	89.2

REHABILITATION OF INJURED WORKMEN IN WISCONSIN.

The Industrial Commission of Wisconsin has just completed a study of the industrial status of handicapped workmen in the city of Milwaukee.<sup>1</sup> The investigation was undertaken for the purpose of throwing some light upon the problem of rehabilitating our disabled soldiers, and it was hoped that the study would indicate what particular trades and industrial processes were especially suitable for crippled men. The great variations in experiences, however, made it impossible to arrive at definite conclusions. In general it was found that those factors which contributed to the failure of the physically normal, such as "bad home conditions, drink, lack of thrift, neglected education, and innate lack of stability," also handicapped the physically disabled. On the whole, however, according to the report, the individual had met the problem of environment and physical defect surprisingly well. Many of the facts and conclusions deduced from the investigation coincided with those of the United States Bureau of Labor Statistics in its recent study of industrial accidents in Massachusetts.<sup>2</sup> The optimistic tenor of the Wisconsin report, however, is hardly justified from the evidence submitted.

Of 76 injured employees studied 37 per cent were reemployed in the same establishment, but only 18 per cent followed their previous occupation. Employers showed a greater interest in the men injured in their own shops than in those disabled elsewhere, but the choice of new employment for the injured workman when he returned to work did not always show careful consideration. In fact the disabled man was too frequently reemployed in a less skilled capacity. The commission believed a little encouragement or personal study would have resulted in the injured man obtaining a better paying place than that of watchman or elevator operator.

According to the report it was relatively easy for the handicapped man to obtain his first job. There was also a comparatively small

<sup>1</sup> Report upon an investigation undertaken for the Industrial Commission of Wisconsin by Miss M. Regina Dolan. The above article is based upon a typewritten copy of the report furnished the Bureau of Labor Statistics in advance of publication.

<sup>2</sup> See article on "What becomes of men crippled in industry," in the MONTHLY LABOR REVIEW for July, 1918, pp. 32-49.

percentage of shifting within the period covered by the study. Many men stated that they had never been refused positions on account of their handicaps, whereas others cited their condition as a reason for remaining in the position at small pay.

Twelve (16 per cent) of the injured employees were unemployed at the time of the investigation and six more were too ill to work. Of these 12 unemployed 6 were over 65 years of age and 11 were leg amputation cases. It is more difficult for the man on crutches to obtain employment than it is for the one-armed man or the man whose general health is impaired. On the other hand a larger proportion of the arm injuries necessitated a radical change of occupation. When a handicap occurred late in life readjustment was more difficult and unemployment more frequent. In fact it is almost impossible for an aged cripple to obtain employment unless the employer takes a special interest in him. The increased insurance risk was also frequently advanced as an objection to the employment of handicapped men.

Another matter emphasized in the report was the deteriorating effect of idleness following an injury. Disinclination to work varies directly with length of unemployment. Self-pity fostered by his family, return to work too long delayed, and lack of interest on the part of the employer in providing suitable work, are potent factors in retarding effective rehabilitation work. On the other hand, through the weekly compensation check the injured employee maintains a certain connection with his former employer and perhaps furnishes the impetus which sends him back to his old job.

The investigation disclosed the fact that it was difficult to find work for a person whose health will not permit of continuous employment. Employers do not want persons who are frequently absent, because it interferes with routine. An attempt was made in one factory to put two men recovering from tuberculosis on one job, working in half-day shifts, but the plan failed.

A summary of the occupational readjustment of the 76 injured men is shown in the following table:

INDUSTRIAL STATUS OF 76 HANDICAPPED MEN IN MILWAUKEE.

Item.	Number.	Per cent.
Followed same occupation.....	<sup>1</sup> 14	18
Followed different occupation.....	<sup>2</sup> 29	38
Went into business or farming.....	7	9
Learned trades.....	2	3
Studying in preparation for work.....	4	5
Too ill to work.....	6	8
Unemployed.....	12	16
History unknown.....	2	3
Total.....	76	100

<sup>1</sup> 11 remained with same employer.

<sup>2</sup> 17 remained with same employer.



The report concludes with the following general observations and suggestions:

That occupational readjustment has been made with too much economic waste is plain. An employer anxious to give work to an injured man must give careful consideration to the possibilities for reeducation where it is necessary. It is not enough to pay the man his former wages and give him a job as watchman. True, it may be troublesome to rearrange his machine so that he can operate it with one arm or sit because standing is no longer possible, but the effort will not be wasted. The man then becomes a productive, industrial asset and the danger of falling into loafing and drunkenness are decreased. Scarcity of labor is leading to more careful placing and the accomplishments of our allies in the rehabilitation of maimed soldiers have been so forcibly presented to manufacturers and employers that they are becoming educated concerning the possibilities still open to the handicapped man. \* \* \* Reeducation, when it is necessary, should be undertaken just as soon as the physical condition of the man will permit. There should be no opportunity to lapse into self-pity or idleness. Delay in returning to work is deadly, though, of course, there should be no hastening at the expense of health. Occupational therapy where it is possible, and it should be possible in every hospital, will help to insure the return of the handicapped man with as little waste as possible.

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#### DISABLED SOLDIERS PLACED BY FRENCH INSTITUTIONS.

The National Office of Disabled and Retired Soldiers, which is under the French ministries of labor and social welfare and has for its special work the coordination of administrations and institutions concerned with the welfare of disabled and discharged soldiers, has issued a monthly leaflet, beginning with June, 1916, showing the number of soldiers placed each month in remunerative work by the various institutions reporting. These leaflets give, besides the numbers placed in vocational groups, the specific employment of each man, the nature of his disability, whether he has undergone vocational reeducation, and whether he has returned to his former occupation or been placed in a new one; also the institution through which the placement was effected.

The following table, compiled from the figures given in the leaflets, shows the number placed monthly for the 17 months from June, 1916, to October, 1917, inclusive, by occupational groups:

DISABLED SOLDIERS PLACED BY FRENCH INSTITUTIONS AS REPORTED BY THE NATIONAL OFFICE OF DISABLED AND DISCHARGED SOLDIERS FROM JUNE, 1916, TO OCTOBER, 1917.

Occupation.	1916						1917						Total.					
	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.		June.	July.	Aug.	Sept.	Oct.
Agriculture.....	2	14	34	15	30	23	20	22	118	199	23	26	15	21	25	16	14	617
Building.....	1	4	4	8	12	16	13	10	7	2	11	7	2	4	23	13	16	156
Transportation.....	17	44	26	63	88	70	88	54	....	74	56	30	19	18	63	40	100	850
Commerce and professions.....	43	84	109	188	229	242	208	213	226	175	128	106	54	77	211	151	210	2,659
Banking.....	5	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5
Chemical industries.....	1	3	2	13	10	8	9	8	15	12	5	2	....	1	15	9	14	127
Miners' industries.....	....	....	9	....	21	....	....	4	3	3	....	....	....	....	....	1	....	41
Metal industries.....	31	61	61	197	174	177	180	120	177	168	92	104	50	28	183	98	184	2,088
Wood industries.....	8	66	15	28	29	20	28	31	36	32	41	26	13	13	22	16	41	465
Glass industries.....	3	2	1	3	3	1	2	1	1	2	4	2	....	....	....	....	2	27
Stone industries.....	....	....	1	....	....	2	....	1	....	....	....	....	....	....	....	....	....	4
Book industries.....	7	4	4	8	11	17	12	9	4	10	6	4	5	4	6	6	8	125
India rubber, paper, carton.....	....	3	....	3	4	4	3	1	4	1	4	....	....	6	....	3	....	36
Leather and hide carton.....	3	18	22	28	37	21	30	27	21	23	18	17	7	10	25	15	25	347
Textile, garment carton.....	....	5	3	19	6	12	7	7	7	7	3	4	5	2	17	11	7	122
Food carton.....	2	5	4	....	6	7	8	4	3	7	3	10	3	4	8	5	7	86
Fishing.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	1
Office boys, messengers, etc.....	....	56	42	23	99	79	104	93	167	76	64	49	53	33	56	100	109	1,203
Custodian.....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1
Domestic service.....	....	27	16	39	55	56	15	....	48	40	23	39	13	15	55	40	37	518
Various.....	28	30	41	21	44	70	71	58	50	33	38	43	32	21	51	58	57	746
Total.....	157	426	394	656	858	825	798	663	887	864	519	469	271	257	766	483	831	10,224

#### FARM COLONIES IN GREAT BRITAIN.

A law entitled "Small Holding Colonies Act, 1916," which became effective August 23 of that year, empowered the board of agriculture and fisheries to acquire by purchase or lease and to manage for experimental purposes farm colonies during the period of the war and for 12 months thereafter. The measure was to give preference to those disabled in the naval or military forces of the present war. It came as a result of the report and recommendations of the departmental committee on the settlement and employment of sailors and soldiers on the land.<sup>1</sup> The board was limited to the purchase or lease of 4,500 acres of land in England, and 2,000 acres each in Wales (including Monmouthshire) and Scotland. The act does not apply to Ireland. Recently, however, a bill was passed in the third reading, June 6, 1918, increasing the above limits to 45,000 and 20,000 acres, respectively.

Four colonies have been settled under the supervision of the board, the first annual report of which has recently appeared covering the

<sup>1</sup> See MONTHLY REVIEW, April, 1916, pp. 11-13, and September, 1916, pp. 87-90.

year 1917.<sup>1</sup> Two of the colonies are on estates in England, which have been acquired through long lease from the Crown, the third on purchased land, and the fourth, in Wales, also on purchased land. In the selection of applicants the board has found that only a small portion of the ultimate settlers are disabled men. The board will always be sympathetic to the claims of disabled men, it is stated, but the first consideration in the selection of applicants must be their prospective capacity for earning a living on the land.

The board notes that it does not have the power to advance capital from state funds to enable them to take up holdings under the scheme, but a considerable number of the applicants possess capital which in some cases may be regarded as being adequate.

The original intention was to establish colonies devoted to fruit and market gardening, dairying and mixed farming, and to cut up the estates acquired into small holdings as soon as applicants possessed of the necessary capital and experience were forthcoming; but this plan has been modified somewhat, and the estates will be worked for a time as one farm on the profit-sharing basis.

As yet the receipts from the operations of the colonies are very small in comparison with the expenditures. Receipts have come principally from the sale of live stock, grain, seed, and other produce; expenditures have been for the purchase of cottages, land, stock, and equipment. The receipts to December 31 amounted to £4,320 (\$21,023.28) and payments to £58,402 (\$284,213.33).

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#### MANUAL TRAINING SCHOOLS IN BRAZIL.

The State Department has submitted to this bureau the following communication from the American vice consul in charge at Rio de Janeiro, Brazil:

By decree No. 13064, of June 12, 1918, the President of Brazil has approved the regulations drawn up by the minister of agriculture, industry, and commerce for the establishment of manual training schools, maintained by the Federal Government, in every State of the Republic, and in the Federal District.

Each school is to include five workshops, equipped in accordance with the prevailing industries of the surrounding district, and each will offer two courses—one in designing, prescribed for all students, and the other a primary course, for those who do not present certificates of graduation from some State or municipal school.

The normal period of training will be four years, and students will be admitted between the ages of 10 and 16. The staff of each school will consist of a director, a clerk, a professor for each of the above mentioned courses and a foreman for each workshop.

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<sup>1</sup> Board of Agriculture and Fisheries. Annual report of proceedings under the Small Holdings Colonies Act, 1916, for the year 1917. London, 1918, 6 pp.



## PRICES AND COST OF LIVING.

### RETAIL PRICES OF FOOD IN THE UNITED STATES.

Retail prices of food as reported to the Bureau of Labor Statistics for July, 1918, show, for all articles combined, an increase of 3 per cent as compared with June, 1918. The prices of several articles decreased. The five cuts of fresh beef show a decline of 1 per cent each. Of the other articles which decreased in price, navy beans were 2 per cent cheaper, and lard, lamb, and coffee decreased less than five-tenths of 1 per cent each. Bread, flour, and corn meal did not change in price in the month.

A comparison of retail food prices for July 15, 1918, with those for July 15, 1917, shows, for all articles combined, an increase of 15 per cent. The greatest increases shown were for fresh beef and hens. The cheaper cuts of beef, plate boiling beef and chuck roast, advanced 36 and 33 per cent, respectively. These cuts advanced more than sirloin steak, which increased in price 29 per cent. Hens were 36 per cent higher than a year ago. Lard, pork chops, bacon, ham, and lamb show increases ranging from 19 per cent for lard to 25 per cent for lamb. Five articles—beans, potatoes, flour, coffee, and bread—were cheaper than in July, 1917.

AVERAGE MONEY RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE JULY 15, 1918, COMPARED WITH JULY 15, 1917, AND JUNE 15, 1918.

Article.	Unit.	Average money price.			Per cent of increase (+) or decrease (—) July 15, 1918, compared with—	
		July 15, 1917.	June 15, 1918.	July 15, 1918.	July 15, 1917.	June 15, 1918.
Sirloin steak.....	Pound....	\$0.327	\$0.426	\$0.421	+29	— 1
Round steak.....	do.....	.306	.406	.403	+32	— 1
Rib roast.....	do.....	.257	.335	.333	+30	— 1
Chuck roast.....	do.....	.219	.295	.291	+33	— 1
Plate beef.....	do.....	.165	.227	.224	+36	— 1
Pork chops.....	do.....	.316	.372	.379	+20	+ 2
Bacon.....	do.....	.429	.515	.523	+22	+ 2
Ham.....	do.....	.396	.465	.487	+23	+ 5
Lard.....	do.....	.274	.326	.325	+19	( <sup>1</sup> )
Lamb.....	do.....	.299	.374	.373	+25	( <sup>1</sup> )
Hens.....	do.....	.280	.376	.380	+36	+ 1
Salmon, canned.....	do.....	.266	.295	.295	+11	( <sup>2</sup> )
Eggs.....	Dozen.....	.420	.425	.491	+17	+16
Butter.....	Pound.....	.459	.511	.526	+15	+ 3
Cheese.....	do.....	.330	.332	.335	+ 2	+ 1
Milk.....	Quart.....	.111	.130	.132	+19	+ 2
Bread.....	16-oz. loaf <sup>3</sup>	.088	.087	.087	— 1	( <sup>4</sup> )
Flour.....	Pound.....	.072	.067	.067	— 7	( <sup>4</sup> )
Corn meal.....	do.....	.059	.067	.067	+14	( <sup>4</sup> )

<sup>1</sup> Decrease of less than five-tenths of 1 per cent.

<sup>2</sup> Increase of less than five-tenths of 1 per cent.

<sup>3</sup> 16 ounces, weight of dough.

<sup>4</sup> No change in price.

AVERAGE MONEY RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE  
JULY 15, 1918, COMPARED WITH JULY 15, 1917, AND JUNE 15, 1918—Concluded.

Article.	Unit.	Average money price.			Per cent of increase (+) or decrease (—) July 15, 1918, compared with—	
		July 15, 1917.	June 15, 1918.	July 15, 1918.	July 15, 1917.	June 15, 1918.
Rice.....	Pound....	\$0.106	\$0.125	\$0.129	+22	+ 3
Potatoes.....	do.....	.043	.029	.039	-10	+34
Onions.....	do.....	.051	.048	.053	+ 4	+10
Beans, navy.....	do.....	.195	.176	.173	-11	- 2
Prunes.....	do.....	.160	.166	.167	+ 4	+ 1
Raisins, seeded.....	do.....	.148	.151	.151	+ 2	( <sup>1</sup> )
Sugar.....	do.....	.091	.091	.092	+ 1	+ 1
Coffee.....	do.....	.306	.302	.301	- 2	( <sup>2</sup> )
Tea.....	do.....	.599	.647	.653	+ 9	+ 1
All articles combined.....					+15	+ 3

<sup>1</sup> No change in price.<sup>2</sup> Decrease of less than five-tenths of 1 per cent.

For the five-year period July 15, 1913, to July 15, 1918, all food combined showed an increase in price of 69 per cent. For every article for which prices are secured by the bureau there was an increase of 50 per cent and over in the five years and for four articles the increase exceeded 100 per cent, as follows: Meal, 123 per cent; potatoes, 105 per cent; lard, 104 per cent; and flour, 103 per cent.

AVERAGE MONEY RETAIL PRICES AND PER CENT OF INCREASE OR DECREASE  
JULY 15 OF EACH SPECIFIED YEAR COMPARED WITH JULY 15, 1913.

Article.	Unit.	Average money price July 15—						Per cent of increase (+) or decrease (—) July 15 of each specified year compared with July 15, 1913.				
		1913	1914	1915	1916	1917	1918	1914	1915	1916	1917	1918
Sirloin steak.....	Pound	\$0.265	\$0.270	\$0.265	\$0.287	\$0.327	\$0.421	+ 2	( <sup>1</sup> )	+ 8	+ 23	+ 59
Round steak.....	do.	.233	.245	.240	.260	.306	.403	+ 5	+ 3	+12	+ 31	+ 73
Rib roast.....	do.	.201	.208	.206	.220	.257	.333	+ 3	+ 2	+ 9	+ 28	+ 66
Chuck roast.....	do.	.175	.167	.179	.219	.291	.291					
Plate beef.....	do.	.127	.123	.132	.165	.224	.224					
Pork chops.....	do.	.216	.222	.211	.234	.316	.379	+ 3	- 2	+ 8	+ 46	+ 75
Bacon.....	do.	.278	.273	.270	.290	.429	.523	- 2	- 3	+ 4	+ 54	+ 88
Ham.....	do.	.282	.279	.265	.323	.396	.487	- 1	- 6	+15	+ 40	+ 73
Lard.....	do.	.159	.154	.145	.208	.274	.325	- 3	- 9	+31	+ 72	+104
Lamb.....	do.	.197	.203	.209	.235	.299	.373	+ 3	+ 6	+19	+ 52	+ 89
Hens.....	do.	.217	.219	.208	.241	.280	.380	+ 1	- 4	+11	+ 29	+ 75
Salmon, canned.....	do.			.198	.200	.266	.296					
Eggs.....	Dozen	.300	.300	.278	.319	.420	.491	( <sup>1</sup> )	- 7	+ 6	+ 40	+ 64
Butter.....	Pound	.347	.343	.343	.355	.459	.526	- 1	- 1	+ 2	+ 32	+ 52
Cheese.....	do.			.232	.243	.330	.335					
Milk.....	Quart.	.088	.088	.087	.088	.111	.132	( <sup>1</sup> )	- 1	( <sup>1</sup> )	+ 26	+ 59
Bread.....	16-oz. <sup>2</sup>	.050	.065	.063	.062	.088	.087	+10	+26	+24	+ 76	+ 74
Flour.....	Pound	.033	.032	.041	.038	.072	.067	- 3	+24	+15	+118	+191
Corn meal.....	do.	.030	.031	.033	.033	.059	.067	+ 3	+10	+10	+ 97	+123
Rice.....	do.			.091	.091	.106	.129					
Potatoes.....	do.	.019	.027	.015	.023	.043	.039	+42	-21	+21	+126	+105
Onions.....	do.			.035	.053	.051	.053					
Beans, navy.....	do.			.076	.117	.195	.173					
Prunes.....	do.			.135	.134	.160	.167					
Raisins.....	do.			.125	.128	.148	.151					
Sugar.....	do.	.054	.052	.070	.087	.091	.092	- 4	+30	+61	+ 69	+ 70
Coffee.....	do.			.299	.299	.306	.301					
Tea.....	do.			.546	.546	.599	.653					
All articles combined.....								+ 3	+ 1	+11	+ 47	+ 68

<sup>1</sup> No change in price.<sup>2</sup> Loaf; 16 ounces, weight of dough.

A table of relative prices based also on the year 1913 follows. These relatives are carried to show the trend of prices. Relatives for sixteen articles only are given, as actual prices and weights were available for only this number in 1913. Beginning with 1914, weights were given to two more articles, chuck roast and plate boiling beef, and they were incorporated in the index number for all articles combined. In 1915, cheese, rice, coffee, and tea became available both as regards prices and weights, making 22 articles in all that now enter into the index number for all articles shown in the table. As the relatives in this table are not extended to decimals, comparisons based on them as to per cent of increase or decrease between various dates will in some cases differ slightly from the percentages shown in the preceding table.

RELATIVE RETAIL PRICES OF FOOD ON JUNE 15 AND JULY 15, 1918, AND ON JULY 15, 1913, 1914, 1915, 1916, AND 1917.

[The relative price shows the per cent that the average price on the 15th of each month was of the average price for the year 1913.]

Article.	Unit.	1918		July 15—				
		June 15.	July 15.	1913	1914	1915	1916	1917
Sirloin steak.....	Pound.....	168	166	104	106	105	113	129
Round steak.....	do.....	182	181	104	109	107	116	137
Rib roast.....	do.....	169	168	102	105	104	112	130
Pork chops.....	do.....	177	180	103	106	100	111	151
Bacon.....	do.....	191	194	104	101	100	107	159
Ham.....	do.....	173	181	104	103	98	120	147
Lard.....	do.....	206	206	101	97	93	132	174
Hens.....	do.....	177	178	102	103	97	113	131
Eggs.....	Dozen.....	123	142	87	87	81	93	122
Butter.....	Pound.....	133	137	91	89	90	93	120
Milk.....	Quart.....	146	148	99	100	98	100	125
Bread.....	16-oz. loaf <sup>1</sup> .....	174	174	100	110	126	124	176
Flour.....	Pound.....	203	203	101	98	125	116	220
Corn meal.....	do.....	223	223	98	103	108	108	195
Potatoes.....	do.....	171	229	110	155	85	134	246
Sugar.....	do.....	165	167	100	95	127	160	166
All articles combined.....	.....	162	167	100	102	100	111	146

<sup>1</sup> 16 ounces, weight of dough.

In the following tables actual average prices are given for 50 cities from which retail dealers report monthly to the bureau. Information is given more in detail for the 19 larger cities shown in the first table than for the smaller cities in the second table.



**AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JULY 15, 1913, 1914, 1917, 1918, AND JUNE 15, 1918.**

[The prices shown below are computed from reports sent monthly to the bureau by retail dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Article.	Unit.	Atlanta, Ga.					Baltimore, Md.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.260	\$0.278	\$0.310	\$0.400	\$0.398	\$0.243	\$0.264	\$0.334	\$0.468	\$0.466
Round steak.....	do.....	.215	.234	.277	.375	.366	.230	.244	.320	.459	.459
Rib roast.....	do.....	.191	.207	.233	.301	.300	.200	.200	.256	.368	.368
Chuck roast.....	do.....		.168	.192	.263	.264		.168	.229	.315	.317
Plate beef.....	do.....		.108	.158	.213	.209		.141	.172	.248	.249
Pork chops.....	do.....	.245	.240	.314	.383	.386	.200	.200	.330	.429	.420
Bacon, sliced.....	do.....	.320	.311	.427	.542	.550	.260	.230	.412	.486	.495
Ham, sliced.....	do.....	.310	.297	.391	.470	.482	.345	.330	.436	.520	.528
Lard.....	do.....	.157	.154	.282	.333	.336	.150	.142	.263	.322	.320
Lamb.....	do.....	.200	.204	.303	.400	.400	.190	.208	.320	.411	.403
Hens.....	do.....	.201	.223	.240	.356	.362	.218	.228	.301	.404	.425
Salmon, canned.....	do.....			.230	.249	.246			.256	.263	.268
Eggs.....	Dozen..	.226	.271	.353	.404	.431	.259	.253	.399	.415	.456
Butter.....	Pound..	.371	.363	.485	.565	.574	.370	.362	.475	.544	.550
Cheese.....	do.....			.338	.343	.345			.344	.348	.350
Milk.....	Quart..	.100	.100	.135	.200	.200	.088	.087	.108	.130	.130
Bread.....	16-oz. <sup>1</sup>	.053	.052	.090	.089	.089	.048	.050	.077	.083	.083
Flour.....	Pound..	.036	.034	.070	.071	.071	.032	.032	.073	.067	.068
Corn meal.....	do.....	.026	.028	.051	.058	.057	.025	.025	.053	.062	.063
Rice.....	do.....			.108	.133	.136			.105	.120	.121
Potatoes.....	do.....	.022	.039	.054	.037	.044	.017	.028	.032	.030	.040
Onions.....	do.....			.070	.058	.062			.052	.049	.055
Beans, navy.....	do.....			.188	.191	.189			.179	.179	.179
Prunes.....	do.....			.173	.183	.178			.157	.167	.167
Raisins, seeded.....	do.....			.150	.161	.156			.145	.150	.152
Sugar.....	do.....	.053	.055	.098	.092	.093	.049	.046	.083	.088	.089
Coffee.....	do.....			.295	.298	.293			.274	.285	.283
Tea.....	do.....			.780	.842	.877			.626	.673	.675

Article.	Unit.	Birmingham, Ala.					Boston, Mass.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.281	\$0.294	\$0.345	\$0.421	\$0.436	\$0.358	\$0.382	\$0.432	\$0.551	\$0.550
Round steak.....	do.....	.225	.244	.318	.397	.401	.358	.372	.440	.568	.571
Rib roast.....	do.....	.206	.231	.267	.340	.360	.256	.253	.308	.394	.397
Chuck roast.....	do.....		.181	.216	.289	.305		.180	.264	.346	.335
Plate beef.....	do.....		.125	.180	.230	.237					
Pork chops.....	do.....	.200	.238	.315	.352	.368	.242	.237	.330	.405	.427
Bacon, sliced.....	do.....	.350	.350	.467	.541	.549	.258	.247	.420	.480	.485
Ham, sliced.....	do.....	.313	.338	.425	.454	.460	.330	.333	.426	.491	.499
Lard.....	do.....	.168	.163	.280	.320	.316	.160	.156	.278	.329	.328
Lamb.....	do.....	.233	.219	.305	.400	.400	.250	.260	.333	.383	.403
Hens.....	do.....	.173	.190	.221	.323	.336	.262	.260	.313	.428	.433
Salmon, canned.....	do.....			.255	.288	.291			.291	.309	.306
Eggs.....	Dozen..	.283	.317	.356	.405	.444	.373	.363	.504	.561	.639
Butter.....	Pound..	.390	.367	.495	.535	.547	.355	.348	.470	.516	.522
Cheese.....	do.....			.345	.332	.335			.323	.334	.339
Milk.....	Quart..	.103	.100	.128	.153	.160	.089	.089	.120	.140	.145
Bread.....	16-oz. <sup>1</sup>	.048	.050	.095	.087	.090	.052	.052	.082	.082	.081
Flour.....	Pound..	.038	.037	.072	.072	.072	.038	.037	.079	.069	.069
Corn meal.....	do.....	.023	.025	.051	.054	.055	.035	.035	.068	.073	.075
Rice.....	do.....			.105	.125	.131			.111	.125	.127
Potatoes.....	do.....	.021	.033	.045	.034	.041	.022	.027	.042	.032	.051
Onions.....	do.....			.058	.051	.055			.057	.060	.067
Beans, navy.....	do.....			.189	.179	.179			.192	.178	.177
Prunes.....	do.....			.159	.158	.153			.167	.168	.170
Raisins, seeded.....	do.....			.157	.154	.156			.148	.152	.152
Sugar.....	do.....	.055	.052	.096	.091	.091	.054	.053	.088	.092	.092
Coffee.....	do.....			.335	.321	.321			.345	.344	.342
Tea.....	do.....			.757	.758	.765			.636	.643	.642

<sup>1</sup> Loaf; 16 ounces, weight of dough.

**AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JULY 15, 1913, 1914, 1917, 1918, AND JUNE 15, 1918—Continued.**

Article.	Unit.	Buffalo, N. Y.					Chicago, Ill.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.240	\$0.236	\$0.321	\$0.409	\$0.415	\$0.242	\$0.260	\$0.302	\$0.379	\$0.377
Round steak.....	do.....	.208	.214	.298	.386	.391	.213	.233	.266	.349	.351
Rib roast.....	do.....	.170	.178	.246	.326	.323	.202	.212	.246	.319	.318
Chuck roast.....	do.....	.162	.162	.226	.291	.293	.174	.174	.217	.279	.285
Plate beef.....	do.....	.128	.128	.172	.233	.231	.122	.122	.165	.214	.213
Pork chops.....	do.....	.223	.226	.343	.406	.414	.204	.204	.292	.360	.355
Bacon, sliced.....	do.....	.250	.224	.419	.480	.486	.327	.316	.439	.550	.547
Ham, sliced.....	do.....	.287	.277	.408	.469	.481	.323	.330	.414	.488	.491
Lard.....	do.....	.145	.136	.258	.307	.309	.151	.150	.258	.316	.318
Lamb.....	do.....	.170	.177	.265	.339	.346	.202	.215	.287	.356	.357
Hens.....	do.....	.220	.218	.286	.387	.391	.202	.199	.253	.343	.353
Salmon, canned.....	do.....	.255	.255	.280	.277	.277	.269	.269	.269	.303	.303
Eggs.....	Dozen.....	.283	.253	.426	.434	.501	.253	.261	.406	.394	.457
Butter.....	Pound..	.330	.320	.439	.496	.510	.323	.312	.432	.468	.480
Cheese.....	do.....	.327	.315	.315	.319	.319	.339	.339	.339	.342	.345
Milk.....	Quart.....	.080	.080	.110	.130	.130	.080	.100	.100	.119	.120
Bread.....	16-oz. <sup>1</sup> .....	.050	.044	.086	.088	.088	.054	.053	.101	.089	.089
Flour.....	Pound..	.031	.030	.071	.062	.062	.029	.029	.070	.063	.065
Corn meal.....	do.....	.026	.026	.059	.069	.066	.028	.028	.058	.068	.068
Rice.....	do.....	.107	.107	.123	.124	.124	.105	.105	.105	.122	.125
Potatoes.....	do.....	.020	.029	.038	.025	.044	.021	.027	.050	.029	.037
Onions.....	do.....	.062	.055	.060	.060	.060	.042	.042	.042	.046	.046
Beans, navy.....	do.....	.194	.174	.169	.169	.169	.199	.175	.175	.173	.173
Prunes.....	do.....	.148	.173	.176	.176	.176	.158	.169	.169	.171	.171
Raisins, seeded.....	do.....	.130	.141	.140	.140	.140	.147	.148	.148	.148	.148
Sugar.....	do.....	.053	.051	.088	.089	.090	.051	.050	.086	.087	.088
Coffee.....	do.....	.293	.293	.293	.293	.293	.293	.293	.293	.284	.284
Tea.....	do.....	.504	.504	.504	.593	.590	.571	.581	.581	.581	.581

Article.	Unit.	Cleveland, Ohio.					Denver, Colo.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.260	\$0.276	\$0.309	\$0.416	\$0.395	\$0.253	\$0.246	\$0.325	\$0.412	\$0.411
Round steak.....	do.....	.230	.239	.292	.390	.372	.232	.231	.303	.387	.395
Rib roast.....	do.....	.200	.197	.241	.301	.311	.178	.179	.249	.307	.316
Chuck roast.....	do.....	.168	.168	.224	.294	.283	.167	.167	.220	.283	.290
Plate beef.....	do.....	.122	.122	.157	.223	.211	.100	.100	.151	.201	.202
Pork chops.....	do.....	.232	.241	.341	.373	.379	.203	.211	.311	.361	.381
Bacon, sliced.....	do.....	.301	.289	.436	.490	.490	.310	.290	.446	.548	.569
Ham, sliced.....	do.....	.380	.350	.431	.491	.488	.333	.325	.448	.511	.515
Lard.....	do.....	.165	.161	.280	.319	.316	.163	.158	.280	.342	.316
Lamb.....	do.....	.207	.209	.280	.365	.361	.178	.184	.310	.353	.356
Hens.....	do.....	.220	.231	.286	.364	.390	.214	.211	.273	.358	.356
Salmon, canned.....	do.....	.254	.254	.289	.289	.289	.250	.250	.250	.289	.280
Eggs.....	Dozen.....	.298	.293	.467	.431	.495	.271	.293	.417	.424	.467
Butter.....	Pound..	.352	.356	.464	.508	.525	.364	.297	.433	.478	.492
Cheese.....	do.....	.320	.320	.320	.323	.324	.346	.346	.346	.352	.346
Milk.....	Quart.....	.080	.080	.100	.130	.130	.084	.084	.098	.112	.115
Bread.....	16-oz. <sup>1</sup> .....	.049	.050	.090	.088	.088	.048	.048	.090	.100	.101
Flour.....	Pound..	.032	.032	.074	.070	.071	.026	.045	.050	.056	.055
Corn meal.....	do.....	.027	.029	.054	.068	.066	.024	.025	.050	.058	.059
Rice.....	do.....	.104	.104	.108	.128	.128	.117	.117	.117	.135	.134
Potatoes.....	do.....	.020	.029	.037	.033	.045	.021	.018	.047	.026	.038
Onions.....	do.....	.062	.048	.052	.052	.052	.053	.053	.053	.046	.049
Beans, navy.....	do.....	.208	.156	.153	.153	.153	.201	.171	.171	.157	.157
Prunes.....	do.....	.162	.161	.167	.167	.167	.177	.168	.168	.168	.168
Raisins, seeded.....	do.....	.130	.147	.150	.150	.150	.147	.157	.157	.147	.147
Sugar.....	do.....	.053	.052	.090	.090	.092	.056	.050	.092	.095	.096
Coffee.....	do.....	.280	.294	.296	.296	.296	.309	.304	.304	.306	.306
Tea.....	do.....	.603	.616	.616	.616	.632	.570	.602	.602	.608	.608

<sup>1</sup> Loaf; 16 ounces, weight of dough.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JULY 15, 1913, 1914, 1917, 1918, AND JUNE 15, 1918—Continued.

Article.	Unit.	Detroit, Mich.					Los Angeles, Cal.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.250	\$0.253	\$0.302	\$0.394	\$0.392	\$0.240	\$0.230	\$0.268	\$0.331	\$0.329
Round steak.....	do.....	.202	.220	.277	.365	.367	.210	.209	.237	.311	.312
Rib roast.....	do.....	.198	.201	.260	.315	.312	.196	.196	.218	.285	.289
Chuck roast.....	do.....		.165	.208	.277	.275		.160	.181	.237	.237
Plate beef.....	do.....		.119	.158	.218	.217		.125	.143	.197	.197
Pork chops.....	do.....	.206	.213	.311	.368	.375	.254	.251	.345	.417	.415
Bacon, sliced.....	do.....	.245	.245	.423	.493	.502	.340	.335	.480	.585	.593
Ham, sliced.....	do.....	.280	.300	.400	.482	.493	.367	.344	.467	.564	.568
Lard.....	do.....	.163	.158	.281	.324	.326	.183	.169	.276	.332	.334
Lamb.....	do.....	.176	.200	.310	.369	.361	.188	.187	.281	.314	.319
Hens.....	do.....	.216	.216	.284	.376	.385	.264		.264	.362	.348
Salmon, canned.....	do.....			.251	.304	.304			.277	.374	.372
Eggs.....	Dozen.....	.270	.273	.424	.445	.505	.330	.343	.405	.447	.528
Butter.....	Pound..	.337	.326	.438	.492	.504	.370	.341	.451	.481	.566
Cheese.....	do.....			.308	.320	.326			.328	.336	.342
Milk.....	Quart.....	.079	.085	.110	.120	.130	.100	.100	.100	.130	.140
Bread.....	16-oz. <sup>1</sup> .....	.050	.050	.083	.084	.084	.053	.053	.078	.079	.079
Flour.....	Pound..	.032	.031	.073	.071	.072	.036	.037	.070	.069	.067
Corn meal.....	do.....	.028	.031	.063	.072	.073	.032	.035	.063	.073	.073
Rice.....	do.....			.111	.127	.131			.103	.128	.131
Potatoes.....	do.....	.019	.029	.044	.027	.043	.017	.012	.026	.022	.023
Onions.....	do.....			.051	.048	.053			.031	.032	.039
Beans, navy.....	do.....			.196	.161	.154			.173	.167	.165
Prunes.....	do.....			.164	.174	.176			.166	.163	.168
Raisins, seeded.....	do.....			.139	.153	.149			.137	.139	.142
Sugar.....	do.....	.053	.050	.088	.089	.093	.055	.052	.083	.087	.088
Coffee.....	do.....			.294	.301	.302			.307	.304	.302
Tea.....	do.....			.500	.565	.559			.542	.611	.639

Article.	Unit.	New York, N. Y.					Philadelphia, Pa.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.270	\$0.273	\$0.337	\$0.441	\$0.439	\$0.320	\$0.326	\$0.389	\$0.539	\$0.531
Round steak.....	do.....	.261	.269	.337	.452	.463	.275	.285	.365	.498	.483
Rib roast.....	do.....	.226	.224	.279	.382	.375	.227	.234	.298	.397	.391
Chuck roast.....	do.....		.170	.219	.313	.311		.185	.253	.346	.350
Plate beef.....	do.....		.151	.199	.285	.288		.122	.170	.236	.239
Pork chops.....	do.....	.226	.232	.326	.397	.406	.222	.230	.343	.410	.419
Bacon, sliced.....	do.....	.264	.256	.422	.484	.498	.279	.265	.423	.511	.527
Ham, sliced.....	do.....	\$ .215	\$ .209	\$ .285	\$ .341	\$ .346	.327	.317	.459	.522	.533
Lard.....	do.....	.162	.156	.274	.326	.322	.153	.149	.275	.327	.323
Lamb.....	do.....	.181	.177	.258	.336	.332	.210	.215	.320	.395	.391
Hens.....	do.....	.226	.218	.287	.403	.410	.233	.238	.313	.429	.434
Salmon, canned.....	do.....			.303	.352	.334			.249	.269	.265
Eggs.....	Dozen.....	.359	.362	.478	.503	.573	.304	.315	.445	.464	.520
Butter.....	Pound..	.344	.335	.453	.508	.514	.392	.395	.512	.567	.576
Cheese.....	do.....			.328	.339	.332			.356	.372	.361
Milk.....	Quart.....	.090	.090	.114	.128	.127	.080	.080	.110	.120	.120
Bread.....	16-oz. <sup>1</sup> .....	.057	.054	.088	.086	.086	.043	.043	.079	.083	.083
Flour.....	Pound..	.033	.032	.076	.072	.072	.032	.031	.077	.071	.071
Corn meal.....	do.....	.034	.035	.070	.080	.079	.027	.028	.054	.068	.068
Rice.....	do.....			.105	.122	.126			.110	.131	.138
Potatoes.....	do.....	.025	.026	.044	.038	.042	.021	.029	.027	.037	.048
Onions.....	do.....			.048	.056	.057			.052	.049	.056
Beans, navy.....	do.....			.188	.178	.175			.182	.177	.171
Prunes.....	do.....			.161	.173	.177			.152	.168	.170
Raisins, seeded.....	do.....			.142	.151	.149			.136	.143	.144
Sugar.....	do.....	.049	.046	.084	.088	.088	.050	.047	.080	.087	.089
Coffee.....	do.....			.262	.279	.274			.278	.273	.268
Tea.....	do.....			.520	.555	.540			.583	.603	.560

<sup>1</sup> Loaf; 16 ounces, weight of dough.<sup>2</sup> Whole.



AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JULY 15, 1913, 1914, 1917, 1918, AND JUNE 15, 1918—Continued.

Article.	Unit.	Milwaukee, Wis.					New Orleans, La.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.230	\$0.243	\$0.299	\$0.382	\$0.380	\$0.225	\$0.235	\$0.282	\$0.347	\$0.339
Round steak.....	do.....	.212	.225	.281	.376	.365	.195	.204	.243	.314	.313
Rib roast.....	do.....	.188	.187	.241	.315	.305	.194	.204	.234	.307	.303
Chuck roast.....	do.....	.168	.168	.222	.290	.281	.150	.150	.182	.244	.231
Plate beef.....	do.....	.124	.124	.157	.221	.215	.124	.124	.153	.194	.193
Pork chops.....	do.....	.200	.215	.305	.356	.354	.231	.243	.309	.381	.387
Bacon, sliced.....	do.....	.286	.282	.415	.502	.506	.261	.297	.459	.538	.542
Ham, sliced.....	do.....	.290	.280	.397	.462	.464	.300	.268	.383	.454	.450
Lard.....	do.....	.156	.158	.279	.322	.321	.151	.143	.276	.325	.330
Lamb.....	do.....	.205	.208	.301	.379	.377	.213	.218	.289	.392	.368
Hens.....	do.....	.206	.208	.259	.343	.344	.193	.211	.284	.377	.375
Salmon, canned.....	do.....	.259	.259	.288	.294	.294	.293	.293	.317	.323	.323
Eggs.....	Dozen..	.238	.252	.376	.380	.450	.276	.295	.375	.359	.448
Butter.....	Pound..	.313	.326	.432	.474	.493	.341	.339	.453	.505	.513
Cheese.....	do.....	.316	.316	.300	.312	.312	.318	.318	.318	.318	.325
Milk.....	Quart..	.070	.070	.090	.103	.100	.093	.097	.116	.142	.142
Bread.....	16-oz. <sup>1</sup>	.050	.051	.100	.080	.080	.045	.042	.079	.079	.079
Flour.....	Pound..	.031	.031	.072	.065	.065	.039	.037	.076	.073	.073
Corn meal.....	do.....	.030	.033	.073	.070	.066	.027	.028	.051	.061	.064
Rice.....	do.....	.113	.113	.132	.135	.135	.089	.089	.114	.119	.119
Potatoes.....	do.....	.020	.029	.057	.020	.041	.020	.029	.053	.018	.030
Onions.....	do.....	.048	.048	.045	.053	.053	.051	.051	.031	.043	.043
Beans, navy.....	do.....	.208	.152	.150	.150	.150	.176	.166	.166	.161	.161
Prunes.....	do.....	.158	.156	.153	.153	.153	.162	.162	.162	.165	.165
Raisins, seeded.....	do.....	.148	.150	.148	.148	.148	.157	.157	.157	.154	.154
Sugar.....	do.....	.055	.050	.087	.088	.091	.052	.050	.089	.088	.090
Coffee.....	do.....	.273	.270	.269	.269	.269	.264	.249	.251	.251	.251
Tea.....	do.....	.672	.612	.620	.620	.620	.614	.601	.601	.601	.615

Article.	Unit.	Pittsburgh, Pa.					St. Louis, Mo.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.275	\$0.283	\$0.360	\$0.494	\$0.471	\$0.248	\$0.283	\$0.321	\$0.384	\$0.384
Round steak.....	do.....	.248	.255	.336	.464	.440	.229	.253	.310	.379	.379
Rib roast.....	do.....	.218	.223	.276	.376	.366	.183	.205	.256	.312	.316
Chuck roast.....	do.....	.177	.177	.246	.337	.327	.161	.161	.217	.265	.264
Plate beef.....	do.....	.129	.129	.170	.248	.234	.135	.135	.162	.212	.212
Pork chops.....	do.....	.230	.233	.338	.397	.398	.198	.213	.308	.352	.366
Bacon, sliced.....	do.....	.295	.300	.435	.529	.537	.278	.260	.419	.492	.494
Ham, sliced.....	do.....	.315	.315	.429	.515	.519	.273	.275	.411	.477	.494
Lard.....	do.....	.155	.155	.282	.325	.322	.141	.126	.243	.292	.296
Lamb.....	do.....	.208	.227	.348	.396	.391	.190	.203	.301	.379	.376
Hens.....	do.....	.265	.268	.356	.428	.438	.180	.190	.249	.338	.340
Salmon, canned.....	do.....	.284	.284	.311	.311	.313	.267	.267	.297	.300	.300
Eggs.....	Dozen..	.271	.273	.421	.437	.489	.214	.240	.377	.374	.425
Butter.....	Pound..	.357	.358	.465	.520	.530	.333	.340	.457	.503	.522
Cheese.....	do.....	.331	.331	.336	.343	.343	.329	.329	.316	.333	.333
Milk.....	Quart..	.086	.090	.103	.125	.128	.080	.080	.110	.120	.123
Bread.....	16-oz. <sup>1</sup>	.048	.047	.091	.085	.085	.049	.050	.092	.087	.088
Flour.....	Pound..	.033	.032	.073	.067	.067	.030	.029	.066	.062	.063
Corn meal.....	do.....	.027	.030	.065	.069	.068	.022	.026	.054	.057	.057
Rice.....	do.....	.104	.104	.124	.133	.133	.099	.099	.126	.129	.129
Potatoes.....	do.....	.018	.029	.041	.038	.045	.019	.026	.039	.038	.034
Onions.....	do.....	.049	.049	.050	.058	.058	.046	.046	.043	.044	.044
Beans, navy.....	do.....	.195	.174	.174	.174	.174	.197	.172	.172	.170	.170
Prunes.....	do.....	.155	.155	.177	.180	.180	.168	.168	.168	.168	.168
Raisins, seeded.....	do.....	.144	.143	.143	.143	.143	.169	.163	.163	.165	.165
Sugar.....	do.....	.055	.055	.095	.095	.094	.052	.050	.087	.088	.090
Coffee.....	do.....	.286	.298	.296	.296	.296	.283	.275	.275	.270	.270
Tea.....	do.....	.666	.738	.738	.738	.738	.581	.688	.688	.683	.683

<sup>1</sup> Loaf; 16 ounces, weight of dough.

## AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 19 SELECTED CITIES FOR JULY 15, 1913, 1914, 1917, 1918, AND JUNE 15, 1918—Concluded.

Article.	Unit.	San Francisco, Cal.					Seattle, Wash.				
		July 15—			June 15, 1918.	July 15, 1918.	July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1917			1913	1914	1917		
Sirloin steak.....	Pound..	\$0.207	\$0.207	\$0.228	\$0.327	\$0.321	\$0.244	\$0.232	\$0.265	\$0.380	\$0.370
Round steak.....	do.....	.190	.197	.221	.320	.316	.215	.208	.252	.362	.353
Rib roast.....	do.....	.210	.217	.223	.301	.300	.200	.192	.230	.313	.315
Chuck roast.....	do.....		.156	.153	.234	.232		.141	.187	.266	.255
Plate beef.....	do.....		.147	.149	.215	.213		.116	.157	.225	.213
Pork chops.....	do.....	.232	.247	.316	.398	.403	.236	.242	.328	.400	.401
Bacon, sliced.....	do.....	.333	.339	.436	.560	.557	.317	.333	.461	.554	.562
Ham, sliced.....	do.....	.300	.330	.418	.494	.512	.317	.308	.405	.497	.500
Lard.....	do.....	.188	.170	.285	.339	.334	.178	.160	.280	.331	.330
Lamb.....	do.....	.167	.183	.251	.321	.338	.196	.185	.272	.376	.368
Hens.....	do.....	.238	.248	.260	.379	.383	.238	.232	.258	.397	.384
Salmon, canned.....	do.....			.239	.263	.267			.250	.287	.293
Eggs.....	Dozen..	.314	.338	.392	.456	.514	.345	.311	.430	.496	.547
Butter.....	Pound..	.364	.329	.455	.507	.566	.355	.325	.448	.496	.548
Cheese.....	do.....			.297	.314	.323			.303	.313	.316
Milk.....	Quart..	.100	.100	.100	.121	.121	.085	.085	.120	.125	.128
Bread.....	16-oz. <sup>1</sup>	.052	.052	.083	.084	.084	.049	.053	.091	.095	.095
Flour.....	Pound..	.034	.069	.068	.072	.069	.029	.029	.066	.061	.061
Corn meal.....	do.....	.034	.035	.065	.075	.073	.031	.031	.065	.075	.074
Rice.....	do.....			.100	.131	.135			.104	.137	.141
Potatoes.....	do.....	.019	.011	.029	.026	.029	.015	.023	.040	.018	.038
Onions.....	do.....			.020	.023	.025			.032	.033	.036
Beans, navy.....	do.....			.184	.159	.152			.199	.176	.176
Prunes.....	do.....			.148	.143	.148			.141	.154	.148
Raisins, seeded.....	do.....			.140	.133	.129			.142	.142	.142
Sugar.....	do.....	.054	.052	.083	.088	.089	.061	.056	.093	.091	.093
Coffee.....	do.....			.300	.306	.304			.313	.317	.317
Tea.....	do.....			.521	.533	.533			.512	.580	.583

Article.	Unit.	Washington, D. C.				
		July 15—			June 15, 1918.	July 15, 1918.
		1913	1914	1915		
Sirloin steak.....	Pound..	\$0.281	\$0.304	\$0.343	\$0.511	\$0.492
Round steak.....	do.....	.246	.276	.332	.492	.471
Rib roast.....	do.....	.220	.230	.274	.397	.397
Chuck roast.....	do.....		.193	.239	.349	.353
Plate beef.....	do.....		.139	.186	.242	.238
Pork chops.....	do.....	.219	.238	.359	.464	.465
Bacon, sliced.....	do.....	.281	.261	.403	.512	.516
Ham, sliced.....	do.....	.300	.306	.424	.504	.512
Lard.....	do.....	.150	.138	.267	.338	.337
Lamb.....	do.....	.214	.233	.322	.443	.430
Hens.....	do.....	.226	.236	.308	.434	.443
Salmon, canned.....	do.....			.242	.286	.284
Eggs.....	Dozen..	.260	.269	.419	.443	.481
Butter.....	Pound..	.366	.369	.475	.550	.560
Cheese.....	do.....			.345	.334	.332
Milk.....	Quart..	.080	.080	.100	.140	.140
Bread.....	16-oz. <sup>1</sup>	.051	.050	.091	.087	.088
Flour.....	Pound..	.038	.038	.076	.065	.067
Corn meal.....	do.....	.025	.025	.053	.061	.060
Rice.....	do.....			.108	.125	.124
Potatoes.....	do.....	.018	.028	.037	.033	.045
Onions.....	do.....			.055	.055	.061
Beans, navy.....	do.....			.194	.188	.182
Prunes.....	do.....			.166	.176	.176
Raisins, seeded.....	do.....			.141	.153	.155
Sugar.....	do.....	.050	.049	.084	.089	.089
Coffee.....	do.....			.284	.295	.287
Tea.....	do.....			.587	.699	.708

<sup>1</sup> Loaf; 16 ounces, weight of dough.

**AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 31 CITIES  
FOR JUNE 15, 1918 AND JULY 15, 1918.**

[The prices shown below are computed from reports sent monthly to the bureau by retail dealers. As some dealers occasionally fail to report, the number of quotations varies from month to month.]

Article.	Unit.	Bridgeport, Conn.		Butte, Mont.		Charleston, S. C.		Cincinnati, Ohio.		Columbus, Ohio.	
		June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.
Sirloin steak.....	Pound..	\$0.545	\$0.529	\$0.397	\$0.388	\$0.377	\$0.377	\$0.381	\$0.366	\$0.403	\$0.409
Round steak.....	do.....	.519	.506	.365	.361	.377	.383	.371	.359	.384	.383
Rib roast.....	do.....	.412	.402	.334	.309	.325	.320	.308	.299	.311	.324
Chuck roast.....	do.....	.361	.346	.288	.270	.262	.262	.261	.256	.283	.291
Plate beef.....	do.....	.228	.224	.216	.199	.215	.217	.226	.223	.234	.241
Pork chops.....	do.....	.393	.411	.385	.393	.393	.400	.359	.372	.351	.355
Bacon, sliced.....	do.....	.529	.537	.584	.580	.538	.546	.479	.484	.491	.504
Ham, sliced.....	do.....	.527	.527	.475	.530	.483	.473	.485	.491	.497	.489
Lard.....	do.....	.318	.317	.328	.334	.333	.329	.298	.299	.310	.315
Lamb.....	do.....	.388	.412	.371	.371	.398	.392	.367	.360	.380	.360
Hens.....	do.....	.422	.424	.373	.376	.422	.416	.376	.378	.353	.344
Salmon, canned.....	do.....	.347	.355	.377	.330	.287	.292	.293	.280	.264	.296
Eggs.....	Dozen..	.555	.625	.505	.590	.405	.461	.381	.427	.363	.431
Butter.....	Pound..	.506	.512	.503	.521	.528	.539	.590	.511	.496	.512
Cheese.....	do.....	.338	.338	.350	.354	.319	.326	.332	.345	.326	.329
Milk.....	Quart..	.130	.130	.150	.150	.190	.185	.130	.130	.123	.120
Bread.....	16-oz. <sup>1</sup>	.090	.089	.106	.106	.090	.091	.084	.084	.090	.088
Flour.....	Pound..	.070	.069	.068	.068	.070	.070	.065	.064	.067	.071
Corn meal.....	do.....	.081	.083	.085	.085	.057	.058	.059	.060	.063	.063
Rice.....	do.....	.128	.133	.135	.140	.098	.106	.122	.127	.124	.133
Potatoes.....	do.....	.034	.046	.015	.033	.027	.034	.020	.033	.032	.049
Onions.....	do.....	.059	.060	.039	.051	.056	.058	.042	.042	.067	.066
Beans, navy.....	do.....	.175	.177	.174	.177	.194	.194	.154	.156	.172	.167
Prunes.....	do.....	.177	.177	.170	.169	.168	.171	.156	.159	.161	.171
Raisins, seeded.....	do.....	.150	.154	.155	.152	.150	.155	.155	.152	.151	.151
Sugar.....	do.....	.094	.094	.100	.100	.088	.089	.089	.091	.089	.093
Coffee.....	do.....	.315	.317	.428	.427	.282	.276	.267	.276	.288	.286
Tea.....	do.....	.638	.659	.707	.779	.646	.657	.679	.659	.810	.805

Article.	Unit.	Dallas, Tex.		Fall River, Mass.		Houston, Tex.		Indianapolis, Ind.		Jacksonville, Fla.	
		June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.
Sirloin steak.....	Pound..	\$0.386	\$0.386	\$0.590	\$0.592	\$0.357	\$0.357	\$0.388	\$0.391	\$0.399	\$0.399
Round steak.....	do.....	.372	.376	.514	.506	.358	.358	.381	.374	.380	.391
Rib roast.....	do.....	.332	.332	.382	.392	.297	.300	.294	.297	.311	.315
Chuck roast.....	do.....	.294	.293	.336	.334	.255	.254	.279	.274	.266	.271
Plate beef.....	do.....	.241	.245	.....	.....	.221	.218	.225	.218	.204	.201
Pork chops.....	do.....	.354	.372	.390	.412	.357	.360	.356	.362	.371	.392
Bacon, sliced.....	do.....	.571	.530	.472	.483	.536	.546	.509	.503	.520	.530
Ham, sliced.....	do.....	.438	.503	.454	.477	.466	.473	.484	.482	.463	.466
Lard.....	do.....	.326	.330	.311	.314	.319	.310	.315	.311	.330	.329
Lamb.....	do.....	.420	.390	.377	.379	.357	.358	.....	.....	.363	.379
Hens.....	do.....	.295	.308	.402	.412	.326	.340	.303	.310	.354	.351
Salmon, canned.....	do.....	.287	.299	.284	.274	.298	.298	.245	.249	.275	.293
Eggs.....	Dozen..	.383	.397	.571	.602	.398	.414	.356	.432	.453	.512
Butter.....	Pound..	.497	.502	.504	.506	.500	.504	.494	.505	.548	.554
Cheese.....	do.....	.329	.331	.332	.333	.326	.325	.354	.358	.336	.345
Milk.....	Quart..	.153	.163	.130	.130	.154	.157	.110	.110	.153	.153
Bread.....	16-oz. <sup>1</sup>	.089	.089	.090	.090	.081	.081	.088	.088	.085	.088
Flour.....	Pound..	.066	.066	.072	.072	.078	.074	.067	.065	.070	.069
Corn meal.....	do.....	.062	.066	.085	.083	.063	.063	.061	.062	.062	.062
Rice.....	do.....	.118	.120	.121	.121	.119	.124	.124	.132	.117	.125
Potatoes.....	do.....	.031	.042	.034	.044	.022	.032	.034	.043	.034	.031
Onions.....	do.....	.044	.050	.055	.066	.041	.047	.057	.053	.055	.063
Beans, navy.....	do.....	.179	.181	.179	.177	.168	.167	.176	.174	.195	.197
Prunes.....	do.....	.164	.161	.163	.171	.160	.162	.171	.175	.170	.171
Raisins, seeded.....	do.....	.148	.150	.154	.158	.167	.163	.174	.173	.171	.171
Sugar.....	do.....	.095	.095	.098	.098	.093	.091	.093	.095	.090	.091
Coffee.....	do.....	.324	.332	.319	.322	.287	.283	.291	.291	.321	.322
Tea.....	do.....	.801	.796	.557	.538	.611	.619	.774	.767	.741	.736

<sup>1</sup> Loaf; 16 ounces, weight of dough.



AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 31 CITIES  
FOR JUNE 15, 1918 AND JULY 15, 1918—Continued.

Article.	Unit.	Kansas City, Mo.		Little Rock, Ark.		Louisville, Ky.		Manchester, N. H.		Memphis, Tenn.	
		June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.
Sirloin steak.....	Pound..	\$0.379	\$0.378	\$0.416	\$0.417	\$0.386	\$0.387	\$0.570	\$0.555	\$0.408	\$0.409
Round steak.....	do.....	.362	.368	.389	.388	.379	.379	.524	.512	.388	.386
Rib roast.....	do.....	.288	.289	.355	.358	.304	.315	.372	.372	.322	.321
Chuck roast.....	do.....	.258	.259	.302	.306	.273	.278	.346	.300	.296	.293
Plate beef.....	do.....	.216	.218	.260	.244	.230	.236	.....	.....	.255	.252
Pork chops.....	do.....	.351	.352	.362	.385	.359	.361	.386	.414	.354	.370
Bacon, sliced.....	do.....	.531	.530	.569	.569	.518	.516	.481	.489	.521	.538
Ham, sliced.....	do.....	.498	.498	.507	.517	.475	.482	.451	.457	.463	.479
Lard.....	do.....	.343	.345	.331	.334	.308	.312	.330	.331	.319	.320
Lamb.....	do.....	.313	.318	.400	.379	.388	.388	.399	.395	.387	.387
Hens.....	do.....	.310	.316	.343	.347	.321	.335	.427	.428	.320	.326
Salmon, canned.....	do.....	.297	.303	.309	.307	.258	.257	.301	.301	.292	.301
Eggs.....	Dozen..	.394	.435	.387	.408	.351	.405	.534	.585	.362	.422
Butter.....	Pound..	.484	.499	.527	.534	.503	.516	.536	.554	.513	.523
Cheese.....	do.....	.341	.350	.358	.359	.326	.337	.339	.339	.319	.326
Milk.....	Quart..	.122	.133	.150	.150	.128	.128	.140	.140	.150	.150
Bread.....	16-oz. <sup>1</sup>	.088	.089	.094	.094	.087	.087	.082	.083	.092	.092
Flour.....	Pound..	.067	.067	.067	.069	.067	.067	.071	.070	.068	.067
Corn meal.....	do.....	.068	.068	.065	.065	.058	.061	.076	.078	.057	.067
Rice.....	do.....	.126	.131	.125	.133	.123	.128	.124	.122	.122	.128
Potatoes.....	do.....	.036	.035	.033	.035	.030	.032	.030	.046	.025	.033
Onions.....	do.....	.048	.048	.056	.057	.045	.042	.059	.067	.044	.046
Beans, navy.....	do.....	.183	.185	.186	.186	.170	.171	.182	.181	.189	.189
Prunes.....	do.....	.156	.155	.170	.176	.164	.161	.163	.165	.165	.168
Raisins, seeded.....	do.....	.148	.161	.149	.150	.151	.161	.155	.154	.157	.155
Sugar.....	do.....	.093	.095	.096	.096	.090	.092	.095	.095	.090	.090
Coffee.....	do.....	.291	.282	.318	.318	.267	.269	.336	.338	.298	.302
Tea.....	do.....	.671	.703	.779	.854	.693	.716	.604	.603	.760	.789

Article.	Unit.	Minneapolis, Minn.		Mobile, Ala.		Newark, N. J.		New Haven, Conn.	
		June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.
Sirloin steak.....	Pound..	\$0.367	\$0.348	\$0.358	\$0.356	\$0.490	\$0.477	\$0.583	\$0.558
Round steak.....	do.....	.346	.337	.350	.347	.489	.484	.538	.520
Rib roast.....	do.....	.306	.294	.317	.314	.389	.386	.418	.407
Chuck roast.....	do.....	.277	.259	.272	.269	.354	.344	.388	.368
Plate beef.....	do.....	.211	.206	.248	.240	.257	.255	.....	.....
Pork chops.....	do.....	.344	.348	.394	.397	.411	.416	.392	.423
Bacon, sliced.....	do.....	.493	.518	.533	.541	.481	.495	.534	.543
Ham, sliced.....	do.....	.473	.477	.440	.442	.361	.365	.585	.538
Lard.....	do.....	.321	.320	.322	.312	.336	.338	.333	.331
Lamb.....	do.....	.322	.321	.359	.359	.409	.400	.421	.424
Hens.....	do.....	.315	.302	.392	.392	.415	.417	.434	.475
Salmon, canned.....	do.....	.345	.350	.270	.261	.342	.331	.336	.322
Eggs.....	Dozen..	.374	.443	.414	.483	.525	.613	.560	.653
Butter.....	Pound..	.465	.474	.532	.543	.531	.541	.527	.533
Cheese.....	do.....	.299	.305	.327	.325	.356	.358	.342	.343
Milk.....	Quart..	.100	.100	.150	.150	.150	.137	.143	.143
Bread.....	16-oz. <sup>1</sup>	.079	.077	.096	.095	.085	.086	.090	.090
Flour.....	Pound..	.059	.063	.071	.070	.072	.072	.070	.069
Corn meal.....	do.....	.055	.057	.068	.067	.081	.081	.080	.089
Rice.....	do.....	.123	.123	.116	.123	.125	.134	.123	.127
Potatoes.....	do.....	.020	.033	.020	.026	.036	.043	.032	.047
Onions.....	do.....	.050	.053	.051	.050	.064	.067	.063	.069
Beans, navy.....	do.....	.164	.160	.183	.179	.179	.178	.183	.180
Prunes.....	do.....	.156	.152	.172	.179	.174	.175	.178	.173
Raisins, seeded.....	do.....	.145	.145	.178	.172	.151	.151	.153	.154
Sugar.....	do.....	.094	.096	.090	.090	.090	.090	.098	.098
Coffee.....	do.....	.309	.311	.265	.281	.301	.301	.333	.329
Tea.....	do.....	.503	.503	.632	.627	.571	.571	.609	.641

<sup>1</sup> Loaf; 16 ounces, weight of dough.

**AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 31 CITIES  
FOR JUNE 15, 1918 AND JULY 15, 1918—Continued.**

Article.	Unit.	Norfolk, Va.		Omaha, Nebr.		Peoria, Ill.		Portland, Me.	
		June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.
Sirloin steak.....	Pound..	\$0.509	\$0.506	\$0.383	\$0.415	\$0.391	\$0.375	\$0.602	\$0.605
Round steak.....	do.....	.463	.463	.378	.415	.391	.370	.516	.514
Rib roast.....	do.....	.391	.397	.298	.309	.289	.279	.353	.357
Chuck roast.....	do.....	.344	.341	.281	.291	.281	.263	.314	.325
Plate beef.....	do.....	.260	.243	.205	.199	.234	.208		
Pork chops.....	do.....	.392	.398	.342	.355	.364	.368	.411	.411
Bacon, sliced.....	do.....	.508	.521	.524	.529	.520	.525	.488	.492
Ham, sliced.....	do.....	.409	.401	.489	.503	.487	.493	.459	.471
Lard.....	do.....	.337	.344	.339	.341	.335	.334	.330	.334
Lamb.....	do.....	.404	.423	.342	.348	.425	.417	.373	.388
Hens.....	do.....	.423	.423	.315	.325	.332	.327	.417	.418
Salmon, canned.....	do.....	.281	.274	.291	.291	.289	.292	.281	.287
Eggs.....	Dozen	.447	.489	.367	.411	.368	.409	.502	.575
Butter.....	Pound..	.571	.567	.481	.496	.473	.487	.546	.555
Cheese.....	do.....	.352	.353	.316	.336	.328	.346	.347	.348
Milk.....	Quart..	.180	.180	.127	.125	.104	.103	.125	.128
Bread.....	16-oz. <sup>1</sup>	.085	.089	.089	.089	.089	.087	.089	.089
Flour.....	Pound..	.069	.071	.064	.064	.070	.070	.066	.068
Corn meal.....	do.....	.063	.063	.063	.062	.059	.063	.072	.072
Rice.....	do.....	.140	.140	.121	.130	.125	.128	.125	.124
Potatoes.....	do.....	.037	.042	.036	.042	.033	.033	.029	.044
Onions.....	do.....	.051	.061	.051	.049	.056	.058	.055	.059
Beans, navy.....	do.....	.187	.186	.172	.172	.190	.181	.180	.179
Prunes.....	do.....	.192	.181	.166	.166	.170	.177	.151	.155
Raisins, seeded.....	do.....	.148	.149	.158	.165	.158	.149	.142	.142
Sugar.....	do.....	.090	.090	.090	.096	.091	.095	.090	.090
Coffee.....	do.....	.323	.316	.309	.316	.267	.267	.302	.308
Tea.....	do.....	.797	.793	.649	.653	.627	.631	.603	.630

Article.	Unit.	Portland, Oreg.		Providence, R. I.		Richmond, Va.		Rochester, N. Y.	
		June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.
Sirloin steak.....	Pound..	\$0.357	\$0.340	\$0.665	\$0.659	\$0.443	\$0.447	\$0.417	\$0.406
Round steak.....	do.....	.339	.329	.553	.550	.415	.421	.390	.386
Rib roast.....	do.....	.309	.296	.423	.428	.365	.358	.336	.325
Chuck roast.....	do.....	.261	.248	.405	.395	.324	.324	.335	.321
Plate beef.....	do.....	.206	.192			.264	.262	.250	.237
Pork chops.....	do.....	.393	.399	.417	.438	.385	.386	.385	.401
Bacon, sliced.....	do.....	.550	.550	.490	.492	.476	.459	.461	.465
Ham, sliced.....	do.....	.489	.494	.541	.557	.439	.440	.455	.454
Lard.....	do.....	.349	.350	.334	.335	.338	.339	.333	.330
Lamb.....	do.....	.338	.329	.395	.420	.392	.413	.375	.371
Hens.....	do.....	.340	.350	.442	.439	.403	.408	.407	.413
Salmon, canned.....	do.....	.354	.350	.333	.291	.243	.238	.293	.296
Eggs.....	Dozen	.474	.490	.550	.606	.434	.472	.455	.536
Butter.....	Pound..	.502	.553	.528	.532	.557	.558	.503	.516
Cheese.....	do.....	.338	.335	.340	.339	.350	.347	.320	.326
Milk.....	Quart..	.126	.136	.140	.144	.145	.145	.125	.125
Bread.....	16-oz. <sup>1</sup>	.096	.096	.090	.091	.089	.089	.088	.087
Flour.....	Pound..	( <sup>2</sup> )	.062	.070	.069	.066	.066	.067	.067
Corn meal.....	do.....	.079	.076	.070	.070	.061	.061	.068	.065
Rice.....	do.....	.129	.141	.121	.122	.136	.139	.125	.134
Potatoes.....	do.....	.014	.028	.027	.045	.039	.048	.024	.046
Onions.....	do.....	.033	.040	.056	.065	.073	.069	.055	.059
Beans, navy.....	do.....	.155	.165	.178	.179	.191	.191	.174	.174
Prunes.....	do.....	.137	.138	.176	.179	.157	.162	.195	.187
Raisins, seeded.....	do.....	.137	.146	.148	.148	.148	.149	.150	.149
Sugar.....	do.....	.091	.096	.094	.094	.093	.093	.090	.090
Coffee.....	do.....	.329	.327	.339	.339	.275	.283	.294	.289
Tea.....	do.....	.585	.573	.584	.584	.757	.743	.565	.575

<sup>1</sup> Loaf; 16 ounces, weight of dough.<sup>2</sup> In compliance with request of the Food Administration, no flour was sold in June.

AVERAGE RETAIL PRICES OF THE PRINCIPAL ARTICLES OF FOOD FOR 31 CITIES  
FOR JUNE, 15, 1918 AND JULY 15, 1913—Concluded.

Article.	Unit.	St. Paul, Minn.		Salt Lake City, Utah.		Scranton, Pa.		Springfield, Ill.	
		June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.	June 15, 1918.	July 15, 1918.
Sirloin steak.....	Pound..	\$0.399	\$0.381	\$0.348	\$0.350	\$0.485	\$0.477	\$0.422	\$0.492
Round steak.....	do.....	.384	.358	.329	.330	.449	.446	.379	.393
Rib roast.....	do.....	.342	.323	.286	.288	.382	.377	.330	.313
Chuck roast.....	do.....	.304	.281	.268	.265	.345	.344	.295	.282
Plate beef.....	do.....	.215	.204	.214	.208	.245	.242	.254	.233
Pork chops.....	do.....	.347	.354	.384	.389	.404	.406	.357	.358
Bacon, sliced.....	do.....	.503	.507	.527	.533	.531	.544	.518	.525
Ham, sliced.....	do.....	.475	.473	.473	.481	.487	.501	.485	.477
Lard.....	do.....	.315	.319	.348	.351	.318	.322	.325	.343
Lamb.....	do.....	.333	.332	.331	.328	.408	.423	.393	.367
Hens.....	do.....	.322	.308	.358	.360	.433	.436	.290	.291
Salmon, canned.....	do.....	.291	.297	.303	.320	.395	.395	.278	.278
Eggs.....	Dozen ..	.377	.438	.407	.492	.444	.486	.378	.408
Butter.....	Pound..	.473	.481	.493	.539	.505	.515	.514	.519
Cheese.....	do.....	.312	.311	.320	.329	.320	.318	.321	.344
Milk.....	Quart..	.100	.100	.114	.114	.120	.120	.111	.125
Bread.....	16-oz. <sup>1</sup>	.075	.075	.087	.088	.087	.088	.090	.090
Flour.....	Pound..	.060	.065	.056	.057	.070	.070	.068	.067
Corn meal.....	do.....	.062	.063	.074	.074	.077	.077	.076	.075
Rice.....	do.....	.133	.134	.121	.127	.124	.129	.132	.132
Potatoes.....	do.....	.017	.029	.017	.034	.023	.046	.033	.039
Onions.....	do.....	.043	.044	.052	.052	.054	.059	.047	.051
Beans, navy.....	do.....	.178	.176	.168	.172	.176	.176	.189	.181
Prunes.....	do.....	.167	.166	.152	.152	.168	.160	.171	.170
Raisins, seeded.....	do.....	.146	.145	.141	.142	.145	.145	.171	.180
Sugar.....	do.....	.094	.099	.095	.097	.090	.090	.095	.098
Coffee.....	do.....	.318	.314	.350	.350	.323	.320	.295	.302
Tea.....	do.....	.569	.587	.611	.609	.588	.610	.757	.725

<sup>1</sup> Loaf; 16 ounces, weight of dough.

## CHANGES IN WHOLESALE PRICES IN THE UNITED STATES.

Information gathered by the Bureau of Labor Statistics in representative markets shows that the prices of many important commodities averaged considerably higher in July, 1918, than in July of the preceding year. Among the articles showing a decided increase were cattle, beef, hogs, bacon, ham, lard, sheep, mutton, cotton, cotton goods, shoes, wool, woolen goods, and pig tin. Smaller increases took place in the prices of butter, eggs, milk, rice, leather, anthracite coal, and crude and refined petroleum. For oats, hides, sugar, and gasoline the price in July was practically the same as in July of the year before.

On the other hand, some commodities were much cheaper in July of the present year than in the corresponding month of 1917. Among these were corn, rye, rye flour, barley, potatoes, coke, copper, pig iron, steel billets, tin plate, and pig lead. Wheat, wheat flour, corn meal, bituminous coal, and spelter were also cheaper than in July, 1917.

Comparing prices in July, 1918, with the average for 1913, the year preceding the outbreak of war in Europe, it is seen from the tables which follow that many commodities have more than doubled in price. Conspicuous examples are wheat, corn, corn meal, rye, rye flour, cotton and cotton goods, and wool and woolen goods. Increases of over 100 per cent are also shown for cattle, hogs, sheep, bacon, lard, wheat flour, oats, chrome calf leather, coke, pig iron, tin plate, and pig tin.



WHOLESALE PRICES IN JULY, 1914, 1915, 1916, AND 1917, AND IN CERTAIN MONTHS OF 1918, AS COMPARED WITH AVERAGE PRICES IN 1913.

## ACTUAL MONEY PRICES.

Article.	Unit.	1913	July—				1918				
			1914	1915	1916	1917	Janu- ary.	April.	May.	June.	July.
FOODSTUFFS.											
(a) Animal.											
Cattle, good to choice steers.	100 lbs..	\$ 8.507	\$ 9.219	\$ 9.213	\$ 9.985	\$ 12.560	\$ 13.113	\$ 15.175	\$ 16.417	\$ 17.175	\$ 17.625
Beef, fresh, good native steers.	Lb.....	.130	.135	.132	.141	.164	.175	.205	.225	.234	.240
Beef, salt, extra mess.	Bbl.....	18.923	17.250	17.500	18.250	30.500	31.500	31.900	32.500	33.625	34.875
Hogs, heavy.....	100 lbs..	8.365	8.769	7.281	9.825	15.460	16.300	17.150	17.263	16.619	17.720
Bacon, short clear sides.	Lb.....	.127	.141	.111	.157	.248	.293	.271	.265	.250	.276
Hams, smoked, loose	Lb.....	.166	.177	.161	.190	.240	.295	.308	.303	.299	.303
Lard, prime, con- tract.	Lb.....	.110	.102	.081	.131	.201	.250	.258	.248	.245	.264
Pork, salt, mess....	Bbl.....	22.471	23.625	18.500	27.167	42.250	50.400	53.200	51.813	48.063	48.500
Sheep, ewes.....	100 lbs..	4.687	4.538	5.469	6.545	8.600	11.144	14.950	14.731	11.781	10.975
Mutton, dressed....	Lb.....	.103	.095	.109	.131	.145	.192	.243	.249	.225	.205
Butter, creamery, extra.	Lb.....	.310	.270	.261	.278	.376	.487	.415	.420	.420	.432
Eggs, fresh, firsts...	Doz.....	.226	.187	.169	.223	.318	.557	.330	.322	.316	.374
Milk.....	Qt.....	.035	.030	.030	.031	.050	.081	.059	.058	.044	.054
(b) Vegetable.											
Wheat, No. 1 north- ern.	Bush....	.874	.897	1.390	1.170	2.582	2.170	2.170	2.170	2.170	2.247
Wheat flour, stand- ard patent.	Bbl.....	4.584	4.594	7.031	6.100	12.750	10.085	9.985	9.525	9.825	10.703
Corn, No. 2, mixed..	Bush....	.625	.710	.783	.808	2.044	1.775	1.665	1.625	1.600	1.665
Corn meal.....	100 lbs..	1.599	1.780	1.750	1.982	4.880	4.835	5.350	4.588	4.425	4.825
Oats, standard, in store.	Bush....	.376	.369	.529	.405	.764	.799	.872	.754	.771	.765
Rye, No. 2.....	Bush....	.636	.618	1.036	.966	2.226	1.915	2.648	2.212	1.838	1.705
Rye flour, pure, medium straight.	Bbl.....	3.123	2.975	5.388	5.150	11.620	9.725	12.535	10.325	8.713	9.425
Barley, fair to good, malting.	Bush....	.625	.533	.743	.746	1.391	1.534	1.722	1.410	1.194	1.125
Rice, Honduras, head.	Lb.....	.051	.054	.049	.045	.070	.079	.087	.091	.091	.094
Potatoes, white....	Bush....	.614	1.206	.444	.863	2.375	1.272	.687	.675	.949	1.035
Sugar, granulated...	Lb.....	.043	.042	.058	.075	.075	.074	.073	.073	.073	.074
TEXTILES AND LEATHER GOODS.											
Cotton, upland, middling.	Lb.....	.128	.131	.092	.130	.261	.324	.317	.275	.304	.312
Cotton yarn, n, carded, 10/1.	Lb.....	.221	.215	.160	.253	.450	.536	.616	.633	.644	.640
Sheeting, brown, Pepperell.	Yd.....	.073	.070	.060	.078	.140	.171	.240	( <sup>1</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Bleached muslin, Lonsdale.	Yd.....	.082	.085	.075	.088	.160	.180	.230	.237	.250	.250
Wool, 1/4 and 3/8 grades, scoured.	Lb.....	.471	.444	.557	.686	1.200	1.455	1.455	1.418	1.418	1.437
Worsted yarn, 2/32's	Lb.....	.777	.650	.850	1.100	1.600	2.000	2.150	2.150	2.150	2.150
Clay worsted suit- ings, 16-oz.	Yd.....	1.382	1.328	1.508	2.000	3.250	4.065	4.275	4.344	4.400	4.453
Storm serge, all- wool, 50-in.	Yd.....	.563	.505	.539	.760	1.176	1.308	1.308	1.348	1.470	1.470
Hides, packers', heavy native steers.	Lb.....	.184	.194	.258	.270	.330	.328	.272	.311	.330	.330
Leather, chrome calf.	Sq. ft...	.270	.275	.280	.460	.540	.530	.550	.585	.640	.640
Leather, sole, oak...	Lb.....	.449	.475	.495	.635	.815	.830	.800	.800	.800	.830
Shoes, men's, Good- year welt, vici calf, blucher.	Pair.....	3.113	3.150	3.250	3.750	4.750	4.750	5.000	5.000	5.455	5.500
Shoes, women's, Goodyear welt, gun metal, but- ton.	Pair.....	2.175	2.260	2.350	2.750	3.500	3.500	3.500	3.650	4.150	4.500

<sup>1</sup> Standard war flour.<sup>2</sup> No quotation.

WHOLESALE PRICES IN JULY, 1914, 1915, 1916, AND 1917, AND IN CERTAIN MONTHS OF 1918, AS COMPARED WITH AVERAGE PRICES IN 1913—Continued.

## ACTUAL MONEY PRICES—Concluded.

Article.	Unit.	1913	July—				1918				
			1914	1915	1916	1917	Janu- ary.	April.	May.	June.	July
MINERAL AND METAL PRODUCTS.											
Coal, anthracite, chestnut.	2240 lbs.	5.313	\$5.241	\$5.200	\$5.507	\$5.933	\$6.600	\$6.370	\$6.400	\$6.427	\$6.693
Coal, bituminous, run of mine.	2000 lbs.	2.200	2.200	2.200	2.200	5.000	3.600	3.600	3.850	3.750	3.750
Coke, furnace, prompt.	2000 lbs.	2.538	2.000	1.750	2.750	15.000	6.000	6.000	6.000	6.000	6.000
Copper, electrolytic.	Lb.....	.157	.134	.199	.265	.318	.235	.235	.235	.230	.254
Copper wire, bare, No. 8.	Lb.....	.167	.148	.210	.325	.338	.263	.263	.263	.263	.285
Pig iron, Bessemer.	2240 lbs.	17.133	14.900	14.950	21.950	57.450	37.250	36.150	36.150	36.338	36.600
Steel billets.....	2240 lbs.	25.789	19.000	21.380	41.000	100.000	47.500	47.500	47.500	47.500	47.500
Tin plate, domestic coke.	100 lbs...	3.558	3.350	3.175	5.875	12.000	7.750	7.750	7.750	7.750	7.750
Pig tin.....	Lb.....	.449	.311	.391	.389	.620	.842	.890	1.008	.905	.930
Pig lead.....	Lb.....	.044	.039	.058	.069	.114	.068	.070	.069	.073	.080
Spelter.....	Lb.....	.058	.051	.220	.113	.093	.079	.070	.074	.078	.088
Petroleum, crude...	Bbl.....	2.450	1.750	1.350	2.600	3.100	3.750	4.000	4.000	4.000	4.000
Petroleum, refined, water-white.	Gal.....	.123	.120	.120	.120	.120	.160	.168	.170	.170	.171
Gasoline, motor.....	Gal.....	.168	.140	.120	.240	.240	.240	.240	.240	.240	.241

## RELATIVE PRICES.

Article.	1913	July—				1918				
		1914	1915	1916	1917	Janu- ary.	April.	May.	June.	July.
FOODSTUFFS.										
(a) Animal.										
Cattle, good to choice steers...	100.	108.4	108.3	117.4	147.6	154.1	178.4	193.0	201.9	207.2
Beef, fresh, good native steers.	100	103.8	101.5	108.5	126.2	134.6	157.7	173.1	180.0	184.6
Beef, salt, extra mess.....	100	91.2	92.5	96.4	161.2	166.5	168.6	171.7	177.7	184.3
Hogs, heavy.....	100	104.8	87.0	117.5	184.8	194.9	205.0	206.4	198.7	211.8
Bacon, short clear sides.....	100	111.0	87.4	123.6	195.3	230.7	213.4	208.7	196.9	217.3
Hams, smoked, loose.....	100	106.6	97.0	114.5	144.6	177.7	185.5	182.5	180.1	182.5
Lard, prime, contract.....	100	92.7	73.6	119.1	182.7	227.3	234.5	225.5	222.7	240.0
Pork, salt, mess.....	100	105.1	82.3	120.9	188.0	224.3	236.7	230.6	213.9	215.8
Sheep, ewes.....	100	96.8	116.7	139.6	183.5	237.8	319.0	314.3	251.4	34.2
Mutton, dressed.....	100	92.2	105.8	127.2	140.8	186.4	235.9	241.7	218.4	199.0
Butter, creamery, extra.....	100	87.1	44.2	89.0	121.3	157.1	133.9	135.5	115.5	139.4
Eggs, fresh, firsts.....	100	82.7	74.8	98.7	140.7	246.5	146.0	142.5	139.8	165.1
Milk.....	100	85.7	85.7	88.6	142.9	231.4	168.6	165.7	125.7	154.3
(b) Vegetable.										
Wheat, No. 1 northern.....	100	102.6	159.0	133.9	295.4	248.3	248.3	248.3	248.3	257.1
Wheat flour, standard patent.	100	100.2	153.4	133.1	278.1	220.0	217.8	207.8	214.3	233.5
Corn, No. 2 mixed.....	100	113.6	125.3	129.3	327.0	284.0	266.4	260.0	156.0	266.4
Corn meal.....	100	111.3	109.4	124.0	305.2	302.4	334.6	286.9	276.7	301.9
Oats, standard in store.....	100	98.1	140.7	107.7	203.2	212.5	231.9	200.5	205.1	203.5
Rye, No. 2.....	100	97.2	162.9	151.9	350.0	301.1	416.4	347.8	289.0	268.1
Rye flour, pure, medium straight.....	100	95.3	172.5	164.9	372.1	311.4	401.4	330.6	279.0	301.8
Barley, fair to good malting.....	100	85.3	118.9	119.4	222.6	245.4	275.5	225.6	191.0	180.0
Rice, Honduras, head.....	100	105.9	96.1	88.2	137.3	154.9	170.6	178.4	178.4	184.3
Potatoes, white.....	100	196.4	72.3	140.6	386.8	207.2	111.9	109.9	154.6	168.6
Sugar, granulated.....	100	97.7	134.9	174.4	174.4	172.1	169.8	169.8	169.8	172.1
TEXTILES AND LEATHER GOODS.										
Cotton, upland, middling.....	100	102.3	71.9	101.6	203.9	253.1	247.7	214.8	237.5	243.8
Cotton yarn, carded, 10/1.....	100	97.3	72.4	114.5	201.6	242.5	278.7	286.4	291.4	289.6
Sheeting, brown, Pepperell.....	100	95.9	82.2	106.8	191.8	234.2	328.8	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )
Bleached muslin, Lonsdale.....	100	103.7	91.5	107.3	195.1	219.5	280.5	289.0	304.9	304.9

<sup>1</sup>Standard war flour.<sup>2</sup>No quotation.

WHOLESALE PRICES IN JULY, 1914, 1915, 1916, AND 1917, AND IN CERTAIN MONTHS OF 1918, AS COMPARED WITH AVERAGE PRICES IN 1913—Concluded.

RELATIVE PRICES—Concluded.

Article.	1913	July—				1918				
		1914	1915	1916	1917	January.	April.	May.	June.	July.
TEXTILES AND LEATHER GOODS—concl.										
Wool, $\frac{1}{2}$ to $\frac{3}{4}$ grades, scoured...	100	94.3	118.3	145.6	254.8	308.9	308.9	301.1	301.1	305.1
Worsted yarn, 2/32s.....	100	83.7	103.4	141.6	205.9	257.4	276.7	276.7	276.7	276.7
Clay worsted suitings, 16-ounce	100	96.1	109.1	144.7	235.2	294.1	309.3	314.3	318.4	322.0
Storm serge, all wool, 50-inch...	100	89.7	95.7	135.0	208.9	232.3	232.3	239.4	261.1	261.1
Hides, packers', heavy native steers.....	100	105.4	140.2	146.7	179.3	178.3	147.8	163.0	179.3	179.3
Leather, chrome calf.....	100	101.9	103.7	170.4	200.0	196.3	203.7	216.7	237.0	237.0
Leather, sole, oak.....	100	105.8	110.2	141.4	181.5	184.9	178.2	178.2	178.2	184.9
Shoes, men's, Goodyear welt, vici calf, blucher.....	100	101.2	104.4	120.5	152.6	152.6	160.6	160.6	175.2	176.7
Shoes, women's, Goodyear welt, gun metal, button.....	100	103.9	108.1	126.4	160.9	160.9	160.9	167.8	190.8	206.9
MINERAL AND METAL PRODUCTS.										
Coal, anthracite, chestnut.....	100	98.6	97.9	103.7	111.7	124.2	119.9	120.5	121.0	126.0
Coal, bituminous, run of mine.	100	100.0	100.0	100.0	227.3	162.7	162.7	175.0	170.5	170.5
Coke, furnace, prompt ship- ment.....	100	78.8	69.0	108.4	591.0	236.4	236.4	236.4	236.4	236.4
Copper, electrolytic.....	100	85.4	126.8	168.8	202.5	149.7	149.7	149.7	146.5	161.8
Copper wire, bare, No. 8.....	100	88.6	125.7	195.6	202.4	157.5	157.5	157.5	157.5	170.7
Pig iron, Bessemer.....	100	87.0	87.3	128.1	335.3	217.4	211.0	211.0	212.1	213.6
Steel billets.....	100	73.7	82.9	159.0	387.8	184.2	184.2	184.2	184.2	184.2
Tin plate, domestic, coke.....	100	94.2	89.2	165.1	337.3	217.8	217.8	217.8	217.8	217.8
Pig tin.....	100	69.3	87.1	86.6	138.1	187.5	196.0	224.5	201.6	207.1
Pig lead.....	100	88.6	131.8	156.8	259.1	154.5	159.1	156.8	165.9	181.8
Spelter.....	100	87.9	379.3	194.8	160.3	136.2	120.7	127.6	134.5	151.7
Petroleum, crude.....	100	71.4	55.1	106.1	126.5	153.1	163.3	163.3	163.3	163.3
Petroleum, refined, water- white.....	100	97.6	97.6	97.6	97.6	130.1	136.6	138.2	138.2	139.0
Gasoline, motor.....	100	83.3	71.4	142.9	142.9	142.9	142.9	142.9	142.9	143.5

PRICE CHANGES, WHOLESALE AND RETAIL, IN THE UNITED STATES.

Exact comparison of wholesale with retail prices is not attempted in the table which follows. Some food products—fresh meats, for example—are not sold by the retailer in the same form in which they leave the wholesaler, hence strictly comparable wholesale and retail prices are not obtainable. In such cases the articles most nearly comparable were selected. It was found impracticable also to obtain both wholesale and retail prices for the same date. The retail prices shown are in all cases those prevailing on the 15th of the month, while the wholesale prices are for a variable date, usually several days prior to the 15th. In each case the wholesale price is the mean of the high and the low quotation on the date selected, as published in leading trade journals, while the retail price is the average of all prices for the article and city in question reported directly to the bureau by retailers. The figures in the tables are therefore to be considered as merely indicative of price variations in the retail as compared with the wholesale markets.

To assist in comparing wholesale with retail price fluctuations, the differential between the two series of quotations at successive dates is given. It should not be assumed, however, that this differential



represents the margin of profit to the retailer, since, in addition to the difference between the wholesale and the retail prices pointed out above, the cost of handling the commodity is included in the figure.

WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES.

[The initial W=wholesale; R=retail.]

Article and city.	Unit.	1913: Average for year.	July—			1917				1918		
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.
Beef, Chicago:												
Steer loin ends.....W..	Lb..	\$0.168	\$0.175	\$0.160	\$0.205	\$0.200	\$0.200	\$0.190	\$0.235	\$0.200	\$0.230	\$0.340
Sirloin steak.....R..	Lb..	.232	.260	.258	.281	.265	.293	.302	.306	.302	.337	.377
Price differential.....		.064	.085	.098	.076	.065	.093	.112	.071	.102	.107	.037
Beef, Chicago:												
Steer rounds, No. 2..W..	Lb..	.131	.145	.143	.145	.120	.155	.170	.190	.165	.185	.250
Round steak.....R..	Lb..	.202	.233	.228	.241	.227	.256	.266	.273	.273	.304	.350
Price differential.....		.071	.088	.085	.096	.107	.101	.096	.083	.108	.119	.100
Beef, Chicago:												
Steer ribs, No. 2....W..	Lb..	.157	.165	.145	.175	.160	.210	.200	.230	.200	.220	.280
Rib roast.....R..	Lb..	.195	.212	.213	.229	.203	.241	.246	.247	.254	.288	.318
Price differential.....		.038	.047	.068	.054	.063	.031	.046	.017	.054	.068	.038
Beef, New York:												
No. 2, loins.....W..	Lb..	.158	.183	.170	.200	.180	.190	.190	.275	.235	.260	.280
Sirloin steak.....R..	Lb..	.250	.274	.282	.291	.284	.318	.337	.356	.344	.380	.439
Price differential.....		.091	.091	.112	.094	.104	.128	.147	.081	.109	.120	.159
Beef, New York:												
No. 2, rounds.....W..	Lb..	.121	.135	.135	.145	.130	.170	.175	.190	.180	.200	.280
Round steak.....R..	Lb..	.249	.270	.271	.289	.275	.315	.337	.360	.352	.384	.463
Price differential.....		.128	.135	.136	.144	.145	.145	.162	.170	.172	.184	.183
Beef, New York:												
No. 2, ribs.....W..	Lb..	.151	.165	.160	.180	.160	.200	.190	.275	.235	.250	.280
Rib roast.....R..	Lb..	.218	.225	.227	.243	.238	.270	.279	.298	.294	.324	.375
Price differential.....		.067	.060	.067	.063	.078	.070	.089	.023	.059	.074	.095
Pork, Chicago:												
Loins.....W..	Lb..	.189	.165	.150	.165	.165	.240	.250	.330	.270	.290	.290
Chops.....R..	Lb..	.190	.204	.201	.217	.227	.285	.292	.358	.316	.330	.355
Price differential.....		.001	.039	.051	.052	.062	.045	.042	.028	.046	.040	.065
Pork, New York:												
Loins, western.....W..	Lb..	.132	.163	.153	.165	.170	.235	.235	.300	.265	.275	.305
Chops.....R..	Lb..	.217	.230	.217	.239	.248	.319	.326	.399	.348	.367	.406
Price differential.....		.065	.067	.064	.074	.078	.084	.091	.099	.083	.092	.101
Bacon, Chicago:												
Short clear sides...W..	Lb..	.127	.139	.113	.159	.158	.218	.247	.318	.301	.275	.274
Sliced.....R..	Lb..	.264	.318	.315	.328	.316	.395	.439	.475	.498	.519	.547
Price differential.....		.167	.179	.202	.169	.158	.177	.192	.157	.197	.244	.273
Ham, Chicago:												
Smoked.....W..	Lb..	.163	.175	.163	.190	.188	.243	.243	.283	.298	.300	.301
Smoked, sliced.....R..	Lb..	.266	.338	.328	.349	.333	.382	.414	.439	.428	.467	.491
Price differential.....		.100	.163	.165	.159	.145	.139	.171	.156	.130	.167	.190
Lard, New York:												
Prime, contract....W..	Lb..	.110	.104	.080	.133	.159	.215	.201	.246	.246	.263	.262
Pure tub.....R..	Lb..	.160	.156	.151	.168	.213	.263	.274	.313	.330	.334	.322
Price differential.....		.050	.052	.071	.035	.054	.048	.073	.067	.084	.071	.060
Lamb, Chicago:												
Dressed round.....W..	Lb..	.140	.170	.190	.190	.200	.220	.260	.270	.240	.290	.310
Leg of, yearling....R..	Lb..	.193	.219	.208	.231	.232	.263	.287	.314	.306	.356	.357
Price differential.....		.049	.049	.018	.041	.032	.043	.027	.044	.066	.066	.047
Poultry, New York:												
Dressed fowls.....W..	Lb..	.182	.188	.175	.215	.220	.265	.248	.285	.298	.340	.360
Dressed hens.....R..	Lb..	.214	.220	.219	.256	.261	.293	.287	.323	.326	.....	.410
Price differential.....		.032	.032	.044	.041	.041	.028	.039	.038	.028	.....	.050
Butter, Chicago:												
Creamery, extra....W..	Lb..	.319	.265	.265	.275	.370	.440	.375	.435	.490	.400	.425
Creamery, extra....R..	Lb..	.363	.312	.322	.335	.438	.484	.432	.487	.544	.460	.480
Price differential.....		.052	.047	.057	.060	.068	.044	.057	.052	.054	.060	.055
Butter, New York:												
Creamery, extra....W..	Lb..	.323	.280	.270	.285	.395	.450	.395	.443	.510	.415	.444
Creamery, extra....R..	Lb..	.382	.328	.336	.346	.460	.513	.453	.515	.574	.493	.514
Price differential.....		.059	.048	.066	.061	.065	.063	.058	.072	.064	.078	.070
Butter, San Francisco:												
Creamery, extra....W..	Lb..	.317	.245	.265	.255	.355	.390	.385	.460	.530	.375	.500
Creamery, extra....R..	Lb..	.388	.329	.338	.333	.425	.452	.455	.545	.602	.452	.566
Price differential.....		.071	.084	.073	.078	.070	.062	.070	.085	.072	.077	.066
Cheese, Chicago:												
Whole milk.....W..	Lb..	.142	.133	.145	.145	.218	.223	.216	.246	.233	.215	.227
Full cream.....R..	Lb..	.....	.....	.229	.242	.321	.327	.330	.368	.375	.353	.345
Price differential.....		.....	.....	.084	.097	.103	.104	.123	.122	.142	.138	.118

## WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN SELECTED CITIES—Concluded.

Article and city.	Unit.	1913: Average for year.	July—			1917				1918		
			1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.
Cheese, New York:												
Whole milk, State..... W.	Lb.	\$0.154	\$0.144	\$0.146	\$0.151	\$0.220	\$0.245	\$0.238	\$0.255	\$0.230	\$0.225	\$0.239
Full cream..... R.	Lb.			.229	.228	.301	.335	.328	.340	.344	.338	.332
Price differential.....				.083	.077	.081	.090	.090	.085	.114	.113	.093
Cheese, San Francisco:												
Fancy..... W.	Lb.	.159	.125	.115	.135	.180	.215	.200	.220	.255	.260	.260
Full cream..... R.	Lb.			.200	.229	.242	.297	.297	.316	.335	.335	.323
Price differential.....				.085	.094	.062	.082	.097	.096	.080	.075	.063
Milk, Chicago:												
Fresh..... W.	Qt.	.033	.036	.037	.036	.045	.054	.047	.074	.070	.058	.053
Fresh, bottled..... R.	Qt.	.080	.080	.080	.081	.100	.100	.100	.129	.119	.119	.120
Price differential.....		.042	.044	.043	.045	.055	.046	.053	.055	.049	.061	.067
Milk, New York:												
Fresh..... W.	Qt.	.035	.030	.030	.031	.051	.049	.050	.072	.081	.059	.054
Fresh, bottled..... R.	Qt.	.090	.090	.090	.090	.100	.109	.114	.138	.150	.140	.127
Price differential.....		.055	.060	.060	.059	.049	.060	.064	.066	.069	.081	.073
Milk, San Francisco:												
Fresh..... W.	Qt.	.039	.039	.038	.038	.038	.038	.043	.059	.066	.059	.059
Fresh, bottled..... R.	Qt.	.100	.100	.100	.100	.100	.100	.100	.121	.121	.121	.121
Price differential.....		.061	.061	.062	.062	.062	.062	.057	.062	.055	.062	.062
Eggs, Chicago:												
Fresh, firsts..... W.	Doz.	.226	.188	.168	.218	.485	.305	.310	.370	.565	.315	.365
Strictly fresh..... R.	Doz.	.292	.261	.248	.295	.525	.376	.406	.469	.651	.390	.457
Price differential.....		.066	.073	.080	.078	.040	.071	.096	.099	.086	.065	.092
Eggs, New York:												
Fresh, firsts..... W.	Doz.	.249	.215	.200	.241	.505	.330	.350	.400	.645	.333	.400
Strictly fresh..... R.	Doz.	.397	.353	.326	.372	.667	.424	.477	.627	.808	.476	.573
Price differential.....		.148	.138	.126	.131	.162	.094	.127	.227	.163	.143	.173
Eggs, San Francisco:												
Fresh..... W.	Doz.	.268	.230	.220	.240	.380	.280	.320	.435	.610	.365	.440
Strictly fresh..... R.	Doz.	.373	.338	.310	.333	.480	.374	.392	.603	.710	.419	.514
Price differential.....		.105	.108	.090	.093	.100	.094	.072	.173	.100	.054	.074
Meal, corn, Chicago:												
Fine..... W.	Lb.	.014	.016		.019	.024	.036	.045	.052	.051	.060	.054
Fine..... R.	Lb.	.029	.028	.031	.031	.042	.050	.058	.071	.070	.072	.068
Price differential.....		.015	.012		.012	.018	.014	.013	.019	.019	.012	.014
Beans, New York:												
Medium, choice..... W.	Lb.	.040	.040	.058	.098	.108	.130	.154	.138	.141	.137	.119
Navy, white..... R.	Lb.			.081	.113	.149	.162	.188	.185	.185	.182	.175
Price differential.....				.023	.015	.041	.032	.034	.047	.044	.045	.056
Potatoes, Chicago:												
White <sup>1</sup> ..... W.	Bu.	.614	1.450	.400	.975	1.750	2.800	2.625	1.135	1.185	.645	1.500
White..... R.	Bu.	.900	1.640	.700	1.356	2.370	3.455	2.975	1.660	1.680	.998	2.203
Price differential.....		.286	.190	.300	.381	.620	.655	.350	.525	.495	.353	.703
Rice, New Orleans:												
Head..... W.	Lb.	.050	.054	.049	.046	.048	.049	.071	.077	.088	.088	.091
Head..... R.	Lb.			.075	.074	.074	.088	.101	.100	.106	.107	.119
Price differential.....				.026	.028	.026	.039	.030	.023	.018	.019	.023
Sugar, New York:												
Granulated..... W.	Lb.	.043	.042	.059	.075	.066	.081	.074	.082	.073	.073	.074
Granulated..... R.	Lb.	.049	.046	.063	.079	.074	.087	.084	.097	.097	.088	.088
Price differential.....		.006	.004	.004	.004	.008	.006	.010	.015	.024	.015	.014

<sup>1</sup> Good to choice.

The table of wholesale and retail prices expressed as percentages of the average money prices for 1913, printed on the next page, will enable the reader to follow readily the trend of price fluctuations of food articles at wholesale and retail. A few articles included in the preceding table are omitted from this one, owing to lack of satisfactory information for 1913. The table shows that, as compared with base prices in 1913, the retail prices of most of the commodities were relatively lower in July than were the wholesale prices. This is noticeable in the case of beef, pork, bacon, lamb, and particularly corn meal, the retail price of which in July had increased 134 per cent over the average price for 1913, while the wholesale price had increased 286 per cent.

RELATIVE WHOLESALE AND RETAIL PRICES OF IMPORTANT FOOD ARTICLES IN  
SELECTED CITIES (AVERAGE FOR 1913=100).

[The initial W=wholesale; R=retail.]

Article and city.	1913: Average for year.	July—			1917				1918		
		1914	1915	1916	Jan.	Apr.	July.	Oct.	Jan.	Apr.	July.
Beef, Chicago:											
Steer loin ends (hips).....W..	100	104	95	122	119	119	113	140	119	137	202
Sirloin steak.....R..	100	112	111	121	114	126	130	132	130	145	163
Beef, Chicago:											
Steer rounds, No. 2.....W..	100	111	109	111	92	118	130	145	126	141	191
Round steak.....R..	100	115	113	119	112	127	132	135	135	151	173
Beef, Chicago:											
Steer ribs, No. 2.....W..	100	105	92	111	102	134	127	146	127	140	178
Rib roast.....R..	100	109	109	117	114	124	126	127	130	148	163
Beef, New York:											
No. 2 loins, city.....W..	100	116	108	127	114	120	120	174	149	165	177
Sirloin steak.....R..	100	106	109	114	110	123	130	137	133	147	170
Beef, New York:											
No. 2 rounds, city.....W..	100	112	112	120	107	140	145	157	149	165	231
Round steak.....R..	100	108	109	116	110	127	135	145	141	154	186
Beef, New York:											
No. 2 ribs, city.....W..	100	109	106	119	106	132	126	182	156	166	185
Rib roast.....R..	100	103	104	111	109	124	128	137	135	149	172
Pork, Chicago:											
Loins.....W..	100	111	101	111	111	161	168	221	181	195	195
Chops.....R..	100	107	106	114	119	150	154	188	166	174	187
Pork, New York:											
Loins, western.....W..	100	107	101	109	112	155	155	197	174	181	201
Chops.....R..	100	106	100	110	114	147	150	184	160	169	187
Bacon, Chicago:											
Short clear sides.....W..	100	109	89	125	124	172	194	250	237	217	216
Sliced.....R..	100	108	107	112	107	134	149	162	169	177	186
Ham, Chicago:											
Smoked.....W..	100	105	98	114	113	146	146	170	180	181	181
Smoked, sliced.....R..	100	127	123	131	125	144	156	165	161	176	185
Lard, New York:											
Prime, contract.....W..	100	95	73	121	145	195	183	224	224	239	238
Pure, tub.....R..	100	98	94	105	133	164	171	196	206	209	201
Lamb, Chicago:											
Dressed, round.....W..	100	114	128	128	134	148	174	181	161	195	208
Leg of, yearling.....R..	100	111	105	117	117	133	145	159	155	180	180
Poultry, New York:											
Dressed fowls.....W..	100	103	96	118	121	146	136	157	164	187	198
Dressed hens.....R..	100	103	102	120	122	137	134	151	152	.....	192
Butter, Chicago:											
Creamery, extra.....W..	100	85	85	89	119	142	121	140	158	129	137
Creamery, extra.....R..	100	86	89	93	121	134	119	135	150	127	133
Butter, New York:											
Creamery, extra.....W..	100	87	84	88	122	139	122	137	158	128	137
Creamery, extra.....R..	100	86	88	91	120	134	119	135	150	129	135
Butter, San Francisco:											
Creamery, extra.....W..	100	77	84	80	112	123	121	145	167	118	158
Creamery, extra.....R..	100	85	87	86	110	116	117	140	155	116	146
Milk, Chicago:											
Fresh.....W..	100	95	97	95	118	142	124	195	184	153	139
Fresh, bottled, delivered.....R..	100	100	100	101	125	125	125	161	149	149	150
Milk, New York:											
Fresh.....W..	100	86	86	89	146	140	143	206	231	169	154
Fresh, bottled, delivered.....R..	100	100	100	100	111	121	127	153	167	156	141
Milk, San Francisco:											
Fresh.....W..	100	100	97	97	97	97	110	151	169	151	151
Fresh, bottled.....R..	100	100	100	100	100	100	100	121	121	121	121
Eggs, Chicago:											
Fresh, firsts.....W..	100	83	74	96	215	135	137	164	250	139	162
Strictly fresh.....R..	100	89	85	101	180	129	139	161	223	130	157
Eggs, New York:											
Fresh, firsts.....W..	100	86	80	97	203	133	141	161	259	134	161
Strictly fresh.....R..	100	80	82	94	168	107	120	158	204	120	144
Eggs, San Francisco:											
Fresh.....W..	100	86	82	90	142	105	119	162	228	136	161
Strictly fresh.....R..	100	91	83	89	129	100	105	163	190	112	138
Meal, corn, Chicago:											
Fine.....W..	100	114	.....	136	171	257	321	371	364	429	386
Fine.....R..	100	97	167	107	145	172	200	245	241	248	234
Potatoes, Chicago:											
White, good to choice.....W..	100	236	65	159	285	456	428	185	193	105	244
White.....R..	100	182	78	151	248	384	331	184	187	111	245
Sugar, New York:											
Granulated.....W..	100	98	137	174	153	188	172	121	170	170	172
Granulated.....R..	100	94	129	161	151	178	171	198	198	180	180



INDEX NUMBERS OF WHOLESALE PRICES IN THE UNITED STATES, 1913  
TO JULY, 1918.

Continuing information published in preceding issues of the MONTHLY LABOR REVIEW,<sup>1</sup> index numbers showing wholesale price changes since 1913 are contained in the subjoined table. During 1914 the prices of most commodities increased between January and September, but declined rapidly in the closing months of the year, due to the prevailing business stagnation brought about by the war. In 1915 a reaction occurred and prices again advanced, reaching high levels late in the year. Since January, 1916, the rise in wholesale prices of many important articles has been unprecedented, although fuel and metal products showed a sharp decline in the last half of 1917.

In the first half of 1918 prices as a whole continued to advance steadily. The increase from June to July has been the largest of the year, the bureau's weighted index number for July standing at 198, as compared with 193 for June, 185 for July, 1917, and 100 as the average for the 12 months of 1913. Considerable increases in price from June to July of the present year are shown by the index numbers for each of the six groups of commodities designated as farm products, food, etc., cloths and clothing, fuel and lighting, metals and metal products, and lumber and building materials. House-furnishing goods showed no change in price, while decreases occurred in chemicals and drugs and among articles classed as miscellaneous.

Among important food articles whose wholesale prices in July averaged higher than in June were corn, wheat, cattle, hogs, lambs, lard, butter, cheese, eggs, flour, corn meal, meats, milk, and potatoes. A few articles, as barley, rye, beans, and lemons were cheaper than in June.

In the period from July, 1917, to July, 1918, the index number of farm products increased from 198 to 221, that of food articles from 180 to 185, and that of cloths and clothing from 187 to 249. In the same period the index number of lumber and building materials increased from 132 to 152, that of chemicals and drugs from 185 to 202, that of house-furnishing goods from 165 to 192, and that of miscellaneous articles from 151 to 192. On the other hand, between the dates named, the index number of fuel and lighting decreased from 183 to 174 and that of metals and metal products from 257 to 183.

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<sup>1</sup>Issued by the U. S. Bureau of Labor Statistics prior to July, 1918, under the title MONTHLY REVIEW.

## INDEX NUMBERS OF WHOLESALE PRICES, BY GROUPS OF COMMODITIES, 1913 TO JULY, 1918.

[1913=100.]

Year and month.	Farm products.	Food, etc.	Cloths and clothing.	Fuel and lighting.	Metals and metal products.	Lumber and building materials.	Chemicals and drugs.	House-furnishing goods.	Miscellaneous.	All commodities.
<b>1913</b>										
Average for year....	100	100	100	100	100	100	100	100	100	100
January.....	97	99	100	99	107	100	101	100	100	99
April.....	97	96	100	99	102	101	100	100	99	98
July.....	101	101	100	100	98	101	99	100	102	101
October.....	103	102	100	100	99	98	100	100	100	101
<b>1914</b>										
Average for year....	103	103	98	92	87	97	103	103	97	99
January.....	101	102	99	99	92	98	101	103	98	100
April.....	103	95	100	98	91	99	101	103	99	98
July.....	104	103	100	90	85	97	101	103	97	99
August.....	109	112	100	89	85	97	100	103	97	102
September.....	108	116	99	87	86	96	106	103	98	103
October.....	103	107	98	87	83	96	109	103	95	99
November.....	101	106	97	87	81	95	108	103	95	98
December.....	99	105	97	87	83	94	107	103	96	97
<b>1915</b>										
Average for year....	105	104	100	87	97	94	113	101	98	100
January.....	102	106	96	86	83	94	106	101	98	98
February.....	105	108	97	86	87	95	104	101	97	100
March.....	105	104	97	86	89	94	103	101	97	99
April.....	107	105	98	84	91	94	102	101	97	99
May.....	109	105	98	83	96	94	102	101	96	100
June.....	105	102	98	83	100	93	104	101	96	99
July.....	108	104	99	84	102	94	107	101	96	101
August.....	108	103	99	85	100	93	109	101	96	100
September.....	103	100	100	88	100	93	114	101	96	98
October.....	105	104	103	90	100	93	121	101	99	101
November.....	102	108	105	93	104	95	141	101	100	102
December.....	103	111	107	96	114	97	146	101	103	105
<b>1916</b>										
Average for year....	122	126	127	115	148	101	143	110	121	123
January.....	108	114	110	102	126	99	140	105	107	110
February.....	109	114	114	102	132	100	144	105	106	111
March.....	111	115	117	104	141	101	147	105	109	114
April.....	114	117	119	105	147	102	150	109	111	116
May.....	116	119	122	104	151	102	153	109	114	118
June.....	116	119	123	105	149	101	150	109	121	118
July.....	118	121	126	105	145	98	143	111	122	119
August.....	126	128	128	107	145	100	132	111	123	123
September.....	131	134	131	110	148	100	132	111	126	127
October.....	136	140	137	128	151	101	135	114	132	133
November.....	145	150	146	150	160	103	142	115	135	143
December.....	141	146	155	163	185	105	143	115	136	146
<b>1917</b>										
Average for year....	188	177	181	169	208	124	185	155	154	175
January.....	147	150	161	170	183	106	144	128	137	150
February.....	150	160	162	178	190	108	146	129	138	155
March.....	162	161	163	181	199	111	151	129	140	160
April.....	180	182	169	178	208	114	155	151	144	171
May.....	196	191	173	187	217	117	164	151	148	181
June.....	196	187	179	193	239	127	165	162	153	184
July.....	198	180	187	183	257	132	185	165	151	185
August.....	204	180	193	159	249	133	198	165	156	184
September.....	203	178	193	155	228	134	203	165	155	182
October.....	207	183	194	143	182	134	242	165	164	180
November.....	211	184	202	151	173	135	232	175	165	182
December.....	204	185	206	153	173	135	230	175	166	181
<b>1918</b>										
January.....	205	188	209	169	173	136	216	188	178	185
February.....	207	186	213	171	175	137	217	188	181	187
March.....	211	178	220	171	175	142	217	188	184	187
April.....	217	179	230	170	176	145	214	188	193	191
May.....	212	178	234	172	177	147	209	188	197	191
June.....	214	179	243	171	177	148	205	192	199	193
July 1.....	222	185	249	174	183	152	202	192	192	198

\* Preliminary.

WHOLESALE PRICES IN THE UNITED STATES AND FOREIGN COUNTRIES,  
1890 TO JUNE, 1918.

In the following table the more important index numbers of wholesale prices in the United States and several foreign countries, as compiled by recognized authorities, have been reduced to a common base in order that the trend of prices in the several countries may be directly compared. The results here shown have been obtained by merely shifting the base for each series of index numbers to the year 1913, i. e., by dividing the index for 1913 on the original base into the index for each year or month on that base. These results are therefore to be regarded only as approximations of the correct index numbers in the case of series constructed by averaging the relative prices of individual commodities. This applies to the index numbers of the Annalist, Gibson, the Economist, Sauerbeck, and the Department of Labor of Canada. The index numbers of the Bureau of Labor Statistics, Bradstreet, Dun, and the Bureau of Census and Statistics of Australia are built on aggregates of actual money prices, or relatives made from such aggregates of actual prices, and therefore can be readily shifted to any desired base.



## WHOLESALE PRICES IN THE UNITED STATES AND CERTAIN FOREIGN COUNTRIES.

[Index numbers expressed as percentages of the index number for 1913.]

Year and month.	United States.					United Kingdom.		Canada.	Australia
	Bureau of Labor Statistics: 294 commodities (variable)	Annalist: 25 commodities.	Bradstreet: 96 commodities.	Dun: 200 commodities.	Gibson: 22 commodities.	Economist: 44 commodities.	Sauerbeck: 45 commodities.	Department of Labor: 272 commodities (variable).	Bureau of Census and Statistics: 92 commodities.
1890.....	81	78	.....	<sup>1</sup> 75	75	<sup>1</sup> 83	85	81	97
1895.....	70	68	70	<sup>1</sup> 67	72	72	73	71	70
1900.....	80	71	86	77	76	82	88	80	82
1905.....	86	79	88	83	81	81	85	84	84
1910.....	100	98	98	98	102	90	92	92	92
1913.....	100	100	100	100	100	100	100	100	100
1914.....	99	104	97	101	105	99	100	100	106
1915.....	100	106	107	105	110	123	127	110	147
1916.....	123	126	128	123	129	160	160	134	138
1917.....	175	187	170	169	191	204	205	174	.....
1914									
January....	100	102	97	103	100	97	98	101	<sup>2</sup> 100
April.....	98	101	95	99	99	96	96	101	<sup>2</sup> 102
July.....	99	104	94	99	101	95	104	99	<sup>2</sup> 109
October....	99	107	100	102	108	101	106	102	<sup>2</sup> 113
1915									
January....	98	108	99	103	111	112	118	103	<sup>2</sup> 127
April.....	99	109	106	103	117	124	125	108	<sup>2</sup> 153
July.....	101	105	107	103	111	122	126	111	<sup>2</sup> 167
October....	101	101	108	105	103	125	134	112	<sup>2</sup> 142
1916									
January....	110	110	119	114	113	143	149	127	<sup>2</sup> 138
April.....	116	118	128	121	123	156	157	132	<sup>2</sup> 137
July.....	119	121	125	120	124	156	157	132	<sup>2</sup> 138
October....	133	136	131	126	141	171	175	138	139
1917									
January....	150	151	149	140	150	184	187	154	<sup>2</sup> 140
February...	155	159	151	146	156	188	193	160	.....
March.....	160	170	154	154	166	197	199	163	.....
April.....	171	188	158	157	188	200	203	169	<sup>2</sup> 146
May.....	181	203	164	172	204	201	205	177	.....
June.....	184	198	168	176	197	210	211	179	.....
July.....	185	189	175	175	200	208	208	179	.....
August....	184	190	178	181	203	210	207	181	.....
September..	182	195	181	178	206	209	207	179	.....
October....	190	200	184	182	207	212	212	179	.....
November..	182	199	185	183	206	214	214	183	.....
December..	181	200	191	182	209	217	218	187	.....
1918									
January....	185	200	195	184	205	215	219	190	.....
February...	187	204	196	188	210	216	220	194	.....
March.....	188	204	196	189	217	218	221	199	.....
April.....	191	207	200	191	225	221	223	199	.....
May.....	191	207	205	188	216	223	225	204	.....
June.....	193	201	206	186	211	227	226	207	.....

<sup>1</sup> Average for January and July.<sup>2</sup> Quarter beginning in specified month.

## COST OF LIVING IN THE DISTRICT OF COLUMBIA.

## EIGHTH ARTICLE—ACTUAL RECORD FOR ONE MONTH OF FOOD PURCHASED BY 88 FAMILIES.

An investigation of the cost of living in the District of Columbia was made in the spring of 1917, and a series of articles relating thereto has appeared in the MONTHLY REVIEW.<sup>1</sup>

This section of the study deals with the quantity and cost of food used in one month as assembled from itemized accounts of food expenditure kept day by day by the housewives in 88 families in the District of Columbia. These monthly accounts were obtained from certain of the housewives who manifested an interest in the bureau's investigation, and who undertook, at the request of the bureau agent, to keep an accurate itemized account of all expenditures for one month. The accounts were kept on forms furnished by the bureau, containing spaces for the date, name of the article, the quantity, and the cost.

Although each record presents the expenditure for one month, all are not for the same month, as the families were visited and started on the record at different dates during the spring of 1917, hence there is some seasonal divergence in the variety of food purchased, especially as regards vegetables and fruits.

In the matter of quantity bought the returns are not complete. Some entries were made showing the money cost but not the quantity; for example, 10 cents' worth of apples, or 25 cents' worth of sausage.

No family was included in the tabulation that did not report the complete food cost for the month.

Because of incomplete reports as to quantity the table is divided into two parts, one section including the families that reported both the quantity and the cost, and the other section including all families purchasing each article whether or not the quantity was reported.

It is interesting to note that of all articles of ordinary diet entering into the study, only one, bread, was purchased by all of the 88 families. The families under consideration averaged 4 members, and the incomes for the month ranged from \$24.35 to \$230.22, the average being \$101.05.

Referring to the table below it is seen that of the 88 families reporting, 82 purchased beef steaks during the month, spending therefor \$101.69. Four of these families did not make a complete record as to the quantity purchased. In the 78 families that reported both quantity and cost for the entire month, the consumption of beef steak was 359.2 pounds, making an average of 4.6 pounds per family, and the total cost was \$97.58, making an average cost per family in these 78 families of \$1.25 per month. Forty-four of the families bought roasts and 64 families bought other kinds of fresh beef. All told, 87 of the 88 families bought one cut or another, or perhaps several cuts of fresh beef, the total cost of which was \$228.02.

<sup>1</sup> MONTHLY REVIEW of October, 1917, November, 1917, December, 1917, January, 1918, February, 1918, March, 1918, April, 1918

## QUANTITY AND COST OF FOOD USED IN ONE MONTH BY 88 FAMILIES IN THE DISTRICT OF COLUMBIA.

Article.	Families using article and reporting both quantity and cost.					Families using article and reporting cost.	
	Number.	Quantity of article.		Cost of article.		Number.	Cost of article.
		Total.	Average per family reporting.	Total.	Average per family reporting.		
Beef, fresh:							
Steaks.....	78	359.2 lbs.....	4.6 lbs.....	\$97.58	\$1.25	82	\$101.69
Roasts.....	42	297.8 lbs.....	7.1 lbs.....	62.36	1.48	44	65.91
Other.....	60	276.7 lbs.....	4.6 lbs.....	55.01	.92	64	60.42
Total.....	84	933.7 lbs.....	11.1 lbs.....	224.09	2.67	87	228.02
Beef, salt and dried.....	22	45.4 lbs.....	2.1 lbs.....	11.86	.54	35	14.19
Veal.....	29	75.8 lbs.....	2.6 lbs.....	18.73	.65	32	21.44
Mutton and lamb.....	34	130.9 lbs.....	3.9 lbs.....	34.52	1.02	42	38.04
Pork, fresh.....	60	298.7 lbs.....	5 lbs.....	70.83	1.18	70	80.91
Pork, salt:							
Bacon.....	55	133.1 lbs.....	2.4 lbs.....	39.05	.71	59	40.32
Ham.....	49	323.1 lbs.....	6.6 lbs.....	83.45	1.70	69	116.86
Shoulder.....	22	135.6 lbs.....	6.2 lbs.....	24.57	1.12	25	30.96
Other.....	18	30.6 lbs.....	1.7 lbs.....	5.83	.32	22	6.54
Total.....	77	622.4 lbs.....	8.1 lbs.....	186.77	2.43	82	194.68
Other meats:							
Sausage.....	52	208.4 lbs.....	4 lbs.....	48.60	.93	67	65.54
Liver.....	30	51.2 lbs.....	1.7 lbs.....	8.32	.28	32	8.52
Soup meats.....	7	7.5 lbs.....	1.1 lbs.....	1.46	.21	32	7.17
Not specified.....	33	94.3 lbs.....	2.9 lbs.....	19.12	.58	61	35.19
Total.....	70	361.4 lbs.....	5.2 lbs.....	105.65	1.51	79	116.42
Poultry.....	24	145.2 lbs.....	6.1 lbs.....	39.46	1.64	28	46.90
Fish and other sea food:							
Fresh fish.....	19	47.1 lbs.....	2.5 lbs.....	8.44	.44	65	47.65
Salt fish (number).....	23	125.....	5.4.....	7.06	.31	37	11.51
Canned.....	46	122 cans.....	2.7 cans.....	16.31	.35	46	16.31
Oysters.....	33	44.5 qts.....	1.4 qts.....	15.92	.48	41	20.57
Total.....						83	96.04
Eggs.....	80	397.8 doz.....	5 doz.....	160.84	2.01	80	160.84
Milk and cream.....	62	1,413.5 qts.....	22.8 qts.....	147.79	2.38	83	213.41
Milk, condensed.....	36	194 cans.....	5.4 cans.....	21.20	.59	36	21.20
Butter and oleomargarine.....	87	482.4 lbs.....	5.5 lbs.....	193.36	2.22	87	193.36
Lard and compounds.....	70	218.8 lbs.....	3.1 lbs.....	44.95	.64	76	50.07
Tea.....	51	36.3 lbs.....	.71 lbs.....	17.28	.34	56	18.78
Coffee and substitutes.....	70	205.8 lbs.....	2.9 lbs.....	51.87	.74	75	57.20
Sugar.....	87	1,558.3 lbs.....	17.9 lbs.....	123.80	1.42	87	123.80
Cheese.....	47	56.9 lbs.....	1.2 lbs.....	18.39	.39	66	25.22
Flour:							
Wheat.....	69	1,146 lbs.....	16.6 lbs.....	66.44	.96	70	68.05
Other.....						43	16.81
Corn meal.....	25	97.1 lbs.....	3.9 lbs.....	3.84	.15	36	9.17
Bread and rolls.....	56	3,132 loaves.....	56 loaves.....	170.85	3.05	88	253.85
Rice.....	53	174 lbs.....	3.3 lbs.....	14.10	.27	53	14.10
Cereals.....						62	29.09
Molasses and sirap.....	39	72 cans.....	1.8 cans.....	8.65	.22	43	12.16
Fruit, fresh:							
Apples.....	47	53.3 pecks.....	1.1 pecks.....	31.03	.66	65	40.92
Bananas.....	45	79.3 doz.....	1.8 doz.....	15.16	.34	45	15.61
Lemons.....	31	15.5 doz.....	.5 doz.....	2.96	.09	32	3.06
Oranges.....	61	125.2 doz.....	2.1 doz.....	30.90	.51	65	33.85
Grapefruit (number).....	19	93.....	5.....	5.31	.28	19	5.31
Other.....						26	11.13
Total.....						84	109.88
Fruit, canned and preserved.....						51	23.72



QUANTITY AND COST OF FOOD USED IN ONE MONTH BY 88 FAMILIES IN THE DISTRICT  
OF COLUMBIA—Concluded.

Article.	Families using article and reporting both quantity and cost.					Families using article and reporting cost.	
	Num-ber.	Quantity of article.		Cost of article.		Num-ber.	Cost of article.
		Total.	Average per family reporting.	Total.	Average per family reporting.		
<b>Fruit, dried:</b>							
Peaches.....	17	36.0 lbs.....	2.1 lbs.....	\$4.18	\$0.25	17	\$4.18
Prunes.....	31	56.3 lbs.....	1.8 lbs.....	7.63	.25	31	7.63
Raisins.....	16	24.0 lbs.....	1.5 lbs.....	2.96	.19	23	4.70
Other.....	8	13.1 lbs.....	1.6 lbs.....	1.97	.25	16	3.49
<b>Total.....</b>	<b>48</b>	<b>129.4 lbs.....</b>	<b>2.7 lbs.....</b>	<b>19.11</b>	<b>.40</b>	<b>52</b>	<b>20.00</b>
<b>Vegetables, fresh:</b>							
Potatoes, Irish.....	70	113.6 pecks..	1.6 pecks..	80.60	1.15	75	86.66
Cabbage.....	33	82.0 heads..	2.5 heads..	9.77	.30	54	19.56
Spinach and kale.....	33	30.3 pecks..	.9 pecks..	12.55	.38	34	12.60
Sweet potatoes.....	42	22.5 pecks..	.5 peck..	12.68	.30	45	12.96
Onions.....	10	35.0 lbs.....	3.5 lbs.....	3.63	.36	66	14.78
Lettuce.....	47	160.0 heads..	3.4 heads..	12.47	.27	48	12.67
Celery.....	30	64.0 stalks..	2.1 stalks..	5.56	.19	32	5.99
Tomatoes.....	17	50.8 lbs.....	3.0 lbs.....	7.10	.42	23	8.51
Other.....						58	26.16
<b>Total.....</b>						<b>87</b>	<b>199.89</b>
<b>Vegetables, canned:</b>							
Tomatoes.....	63	219.0 cans...	3.5 cans...	26.76	.42	63	26.76
Corn.....	42	110.0 cans...	2.6 cans...	13.42	.32	42	13.42
Beans.....	44	123.0 cans...	2.8 cans...	15.79	.36	44	15.79
Peas.....	56	178.0 cans...	3.2 cans...	21.57	.39	56	21.57
Other.....	27	58.0 cans...	2.1 cans...	8.05	.30	33	10.68
<b>Total.....</b>	<b>84</b>	<b>688.0 cans...</b>	<b>8.2 cans...</b>	<b>83.22</b>	<b>1.05</b>	<b>84</b>	<b>88.22</b>
<b>Vegetables, dried:</b>							
Beans.....	49	113.0 lbs.....	2.3 lbs.....	15.30	.31	51	16.24
Peas.....	13	173.0 lbs.....	13.3 lbs.....	1.73	.13	13	1.73
<b>Ice.....</b>						<b>12</b>	<b>10.40</b>
<b>Other foods:</b>							
Crackers.....						65	18.45
Cakes.....						83	66.91
Chocolate and cocoa.....						52	14.18
Soup, canned.....	30	119.0 cans...	4.0 cans...	11.47	.38	30	11.47
Condiments and extracts.....						78	23.83
Hominy.....						29	4.66
Pie.....						45	12.53
Macaroni and spaghetti.....						55	11.75
Pickles and olives.....						36	6.72
Baking powder, soda, and yeast.....						57	11.24
Sodas and soft drinks.....						20	3.39
Ice cream.....						42	24.96
Not specified.....						76	65.81
<b>Total.....</b>						<b>88</b>	<b>275.93</b>
<b>Meals outside home.....</b>						<b>44</b>	<b>78.33</b>
<b>Grand total.....</b>						<b>88</b>	<b>2,928.09</b>

## COST OF LIVING IN THE PACIFIC SHIPBUILDING DISTRICTS.

The following tables summarize the result of a study made of the cost of living in five shipbuilding centers on the Pacific coast, namely, Seattle, Tacoma, Portland, San Francisco, and Los Angeles.

The study was made by the Bureau of Labor Statistics in cooperation with the Wage Adjustment Board of the Emergency Fleet Corporation. Like reports for other shipbuilding centers in the United States have appeared in preceding numbers of the MONTHLY REVIEW.<sup>1</sup>

Schedules showing in detail the family expenditures for the year ending May 31, 1918, were secured in these districts by special agents of the Bureau of Labor Statistics in personal visits to the homes of the families of workers in shipyards and of other wage earners in the same localities. The purpose of the study was to show not only the present cost of living, but changes in cost of living in recent years. The Bureau of Labor Statistics for several years has collected currently the retail prices of food in each of these localities except Tacoma, making such figures available for use in this report. Retail prices for clothing, furniture and furnishings, rent, and fuel and light back to 1914 were obtained in each locality by the agents in addition to the information concerning the family cost of living for one year.

The following tables show the number of families from which reports were obtained in each district, the average expenditure per family for each of the principal classes of expenditure, the per cent that each average is of the total average expenditure, together with the per cent of increase in the retail prices of the articles in each class of expenditure in December, 1915, December, 1916, December, 1917, and June, 1918, over the retail prices in December, 1914:

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES OF FAMILIES IN SHIPBUILDING DISTRICTS IN THE YEAR ENDING MAY 31, 1918, FOR EACH OF THE PRINCIPAL ITEMS OF COST OF LIVING SPECIFIED, AND THE PER CENT OF INCREASE IN THE RETAIL PRICES OF EACH ITEM IN DECEMBER, 1915, 1916, AND 1917, AND JUNE, 1918, ABOVE THE PRICES IN DECEMBER, 1914.

## SEATTLE, WASH.: 208 families.

Expenditures for—	Expenditures per family.		Per cent of increase in retail prices in December, 1915, December, 1916, December, 1917, and June, 1918, above the prices in December, 1914.			
	Average.	Per cent.	December, 1915.	December, 1916.	December, 1917.	June, 1918.
Clothing:						
Males.....	\$115.24	7.34	0.79	10.87	34.81	62.22
Females.....	125.46	8.00	1.55	11.72	37.93	62.30
Total.....	240.70	15.34	1.19	11.31	36.44	62.26
Furniture and furnishings.....	73.87	4.71	8.52	27.43	52.29	82.67
Food.....	576.38	36.75	<sup>2</sup> 2.75	8.46	38.65	51.87
Housing.....	211.51	13.48	<sup>2</sup> 2.42	<sup>2</sup> 5.41	<sup>2</sup> 1.55	16.70
Fuel and light.....	73.19	4.66	<sup>2</sup> 1.19	2.93	23.85	45.96
Miscellaneous.....	393.45	25.08	<sup>2</sup> 1.02	7.40	31.08	49.24
Total.....	1,569.10	100.00	<sup>2</sup> 1.02	7.40	31.08	49.24

<sup>1</sup> March, April, and June, and MONTHLY LABOR REVIEW, August, 1918.

<sup>2</sup> Decrease.

AVERAGE EXPENDITURES AND PER CENT OF AVERAGE TOTAL EXPENDITURES  
OF FAMILIES IN SHIPBUILDING DISTRICTS IN THE YEAR ENDING MAY 31, 1918,  
ETC.—Concluded.

TACOMA, WASH.: 103 families.

Expenditures for—	Expenditures per family.		Per cent of increase in retail prices in December, 1915, December, 1916, December, 1917, and June, 1918, above the prices in December, 1911.			
	Average.	Per cent.	December, 1915.	December, 1916.	December, 1917.	June, 1918.
Clothing:						
Males.....	\$122.78	7.99	2.03	13.62	47.90	78.99
Females.....	120.96	7.88	2.00	11.03	36.63	67.38
Total.....	243.74	15.87	2.02	12.33	42.30	73.22
Furniture and furnishings.....	85.33	5.56	4.50	20.12	45.34	69.56
Food.....	552.56	35.97	<sup>1</sup> 2.75	8.46	38.65	51.87
Housing.....	118.16	7.69	<sup>1</sup> 5.82	<sup>1</sup> 10.36	.32	21.38
Fuel and light.....	68.10	4.43	.27	.57	17.81	52.45
Miscellaneous.....	468.13	30.48	<sup>1</sup> 1.23	7.69	34.45	54.82
Total.....	1,536.02	100.00	<sup>1</sup> 1.23	7.69	34.45	54.82

PORTLAND, OREG.: 164 families.

Clothing:						
Males.....	\$102.18	7.63	3.44	16.75	44.30	69.20
Females.....	98.49	7.36	2.60	14.71	44.47	75.02
Total.....	200.67	14.99	3.03	15.75	44.38	72.06
Furniture and furnishings.....	72.49	5.42	2.87	18.02	54.47	84.85
Food.....	518.65	38.75	<sup>1</sup> 3.81	9.75	42.17	52.43
Housing.....	175.17	13.09	<sup>1</sup> 10.91	<sup>1</sup> 19.55	<sup>1</sup> 22.16	<sup>1</sup> 8.43
Fuel and light.....	58.76	4.39	<sup>1</sup> 1.96	3.44	20.24	34.85
Miscellaneous.....	312.67	23.36	<sup>1</sup> 3.05	6.14	31.23	47.16
Total.....	1,338.41	100.00	<sup>1</sup> 3.05	6.14	31.23	47.16

SAN FRANCISCO DISTRICT: 286 families.

Clothing:						
Males.....	\$108.73	7.54	2.14	14.43	42.05	72.39
Females.....	108.89	7.56	2.77	14.53	45.07	71.92
Total.....	217.62	15.10	2.46	14.48	43.56	72.15
Furniture and furnishings.....	43.65	3.03	5.96	21.71	48.21	73.32
Food.....	578.00	40.10	<sup>1</sup> 4.31	9.63	35.90	44.87
Housing.....	230.43	15.99	<sup>1</sup> 1.72	<sup>1</sup> 2.52	<sup>1</sup> 4.02	<sup>1</sup> 4.54
Fuel and light.....	54.95	3.81	<sup>1</sup> 1.14	4.57	14.35	11.35
Miscellaneous.....	316.64	21.97	<sup>1</sup> 1.66	8.30	28.63	39.49
Total.....	1,441.29	100.00	<sup>1</sup> 1.66	8.30	28.63	39.49

LOS ANGELES DISTRICT: 157 families.

Clothing:						
Males.....	\$95.34	7.40	1.65	10.33	41.85	68.77
Females.....	92.46	7.17	3.95	18.36	48.29	77.82
Total.....	187.80	14.57	2.78	14.28	45.02	73.22
Furniture and furnishings.....	36.04	2.80	6.28	23.09	56.43	84.70
Food.....	515.44	39.99	<sup>1</sup> 4.12	.41	33.41	40.02
Housing.....	191.24	14.84	<sup>1</sup> 2.68	<sup>1</sup> 2.54	<sup>1</sup> .64	8.28
Fuel and light.....	39.91	3.10	.36	2.34	10.40	13.04
Miscellaneous.....	318.36	24.70	<sup>1</sup> 1.93	7.68	28.85	40.74
Total.....	1,288.79	100.00	<sup>1</sup> 1.83	7.68	28.85	40.74

<sup>1</sup> Decrease.



The San Francisco district includes San Francisco and Oakland. The Los Angeles district includes families living in Los Angeles, Long Beach, and San Pedro. Retail prices of food were not available for Tacoma. While the prices of food might not have been exactly the same in Tacoma as in Seattle, it has been assumed that the per cent of change that took place in food prices in Seattle would apply approximately to Tacoma.

The term "Miscellaneous" in the table includes expenditures for all items—such as tobacco, liquors, cleaning supplies, amusements, vacation, etc.—not included in the other items specified. The increase in the cost of many of these miscellaneous items could not be traced satisfactorily through the period back to 1914, and it has been assumed that the percentage of increase in this group has been approximately the same as the average increase of all of the other items combined.

The average per cent of increase for the total of all items each year is computed by multiplying the proportion of expenditure for each item by the per cent of increase in the retail price of that item as compared with 1914, and dividing the aggregates of the products thus obtained, by 100.

The table following shows the per cent of increase in retail prices in Seattle, Wash., in February and June, 1918, above the prices in October, 1917.

PER CENT OF INCREASE IN RETAIL PRICES IN SEATTLE, WASH., IN FEBRUARY, 1918, AND JUNE, 1918, ABOVE THE PRICES IN OCTOBER, 1917.

Item.	Per cent of increase in retail prices in February and June, 1918, above the prices in October, 1917.		Item.	Per cent of increase in retail prices in February and June, 1918, above the prices in October, 1917.	
	February, 1918.	June, 1918.		February, 1918.	June, 1918.
Clothing:			Furniture and furnishings.	12.25	20.84
Males.....	14.53	21.52	Food.....	4.32	9.42
Females.....	13.34	18.54	Housing.....	9.56	19.22
Total.....	13.91	19.97	Fuel and light.....	6.00	13.70
			Miscellaneous.....	7.83	14.33
			Total.....	7.83	14.33

**YEAR'S CLOTHING BILL OF 100 FAMILIES OF WAGE EARNERS IN NEW YORK CITY SHIPBUILDING DISTRICT.**

As a part of the recent study made by the Bureau of Labor Statistics of the cost of living in the New York City shipbuilding district, detailed figures for the cost of clothing of the different members of the family for one year were obtained. To ascertain approximately the apportionment among the several members of the family of the clothing cost and the number of articles bought, a tabulation has been made of the year's clothing bill of 100 representative families.

The families are those of wage earners earning from \$718.80 to \$2,210 in the year, with an average of \$1,295.07, which income was supplemented in some of the families by the earnings of children and by payments from boarders and lodgers. While the figures are limited to but 100 families, it is believed that they are of sufficient volume to be of service to persons desiring a knowledge of the wage earners' clothing budget. The clothing of males and females are presented separately. In each family there was a husband and a wife. The children are grouped by ages, the age of each child being reported as of the birthday occurring in the year covered by the report. The table shows the number of persons for whom each article was bought, with totals and averages of articles bought, and cost.

To explain the table reference is made to the first item for husbands, where it is seen that 85 of the 100 husbands bought 2,201 pairs of gloves and mittens, a heavy item of expense for shipbuilders. This made an average of 22.01 pairs as spread over the 100 husbands, or an average of 25.89 pairs for each of the 85 husbands buying. The total cost of these gloves and mittens was \$417.34, an average of 19 cents per pair, \$4.17 per each of the 100 husbands, and \$4.91 per each of the 85 husbands buying gloves and mittens.

## AMOUNT SPENT FOR SPECIFIED ARTICLES OF CLOTHING IN ONE YEAR BY 100 REPRESENTATIVE FAMILIES.

## MALES.

Husbands (100 families, 100 husbands).								
Article.	Number of persons for whom article was bought.	Articles bought.						
		Average number.		Cost.		Average expenditure.		
		Total.	Per person.	Per person for whom bought.	Total.	Average per article.	Per person.	Per person for whom bought.
Gloves and mittens(pairs)	85	2,201	22.01	25.89	\$417.34	\$0.19	\$4.17	\$4.91
Hats and caps.....	90	211	2.11	2.34	303.68	1.44	3.04	3.37
Overalls.....	78	223	2.23	2.86	414.29	1.86	4.14	5.31
Overcoats.....	38	40	.4	1.05	659.25	16.48	6.59	17.35
Shirts.....	98	432	4.32	4.41	519.94	1.20	5.20	5.31
Shoes.....	99	325	3.25	3.28	1,331.00	4.10	13.31	13.44
Socks.....	100	1,898	18.98	18.98	449.14	.24	4.49	4.49
Suits.....	67	73	.73	1.1	1,438.25	19.70	14.38	21.47
Sweaters.....	35	36	.36	1.03	134.18	3.73	1.34	3.83
Trousers (extra).....	60	104	1.04	1.73	268.83	2.53	2.69	4.48
Underwear.....	96	405	4.05	4.22	598.07	1.48	5.98	6.23
Other items.....					783.12		7.83	
Grand total and average.....					7,317.09		73.17	
Boys 15 years of age and over (9 families, 10 boys).								
Gloves and mittens(pairs)	10	164	16.4	16.4	\$30.70	\$0.19	\$3.07	\$3.07
Hats and caps.....	10	25	2.5	2.5	32.28	1.29	3.23	3.23
Overalls.....	4	7	.7	1.75	10.05	1.44	1.00	2.51
Overcoats.....	4	4	.4	1	51.50	12.88	5.15	12.88
Shirts.....	10	57	5.7	5.7	48.26	.85	4.83	4.83
Shoes.....	10	37	3.7	3.7	149.10	4.03	14.91	14.91
Socks.....	10	285	28.5	28.5	64.32	.23	6.43	6.43
Suits.....	10	15	1.5	1.5	165.00	11.00	16.50	16.50
Sweaters.....	4	5	.5	1.25	20.25	4.05	2.03	5.06
Trousers (extra).....	4	6	.6	1.5	13.50	2.25	1.35	3.38
Underwear.....	10	40	4	4	46.74	1.17	4.67	4.67
Other items.....					72.35		7.24	
Grand total and average.....					704.05		70.41	
Boys 11 to 14 years of age (25 families, 33 boys).								
Gloves and mittens(pairs)	31	40	1.21	1.29	\$21.71	\$0.54	\$0.66	\$0.70
Hats and caps.....	31	63	1.91	2	36.30	.58	1.10	1.17
Overalls.....	3	5	.15	1.67	4.05	.81	.12	1.35
Overcoats.....	18	18	.55	1	116.00	6.44	3.52	6.44
Shirts.....	32	162	4.91	5.06	90.14	.56	2.73	2.82
Shoes.....	33	142	4.3	4.3	403.00	2.84	12.21	12.21
Socks.....	33	748	22.67	22.67	178.12	.24	5.40	5.40
Suits.....	26	31	.94	1.19	188.98	6.10	5.73	7.27
Sweaters.....	9	9	.27	1	20.46	2.27	.62	2.27
Trousers (extra).....	18	35	1.06	1.94	37.39	1.07	1.13	2.08
Underwear.....	31	107	3.24	3.45	77.39	.72	2.35	2.50
Other items.....					161.65		4.90	
Grand total and average.....					1,335.28		40.46	



AMOUNT SPENT FOR SPECIFIED ARTICLES OF CLOTHING IN ONE YEAR BY 100  
REPRESENTATIVE FAMILIES—Continued.

## MALES—Concluded.

Boys 7 to 10 years of age (31 families, 32 boys).								
Article.	Number of persons for whom article was bought.	Articles bought.						
		Average number.		Cost.		Average expenditure.		
		Total.	Per person.	Per person for whom bought.	Total.	Average per article.	Per person.	Per person for whom bought.
Gloves and mittens (pairs)	29	44	1.38	1.52	\$16.57	\$0.38	\$0.52	\$0.57
Hats and caps	32	54	1.69	1.69	31.98	.59	1.00	1.00
Overalls	6	10	.32	1.67	5.53	.55	.17	.92
Overcoats	17	17	.53	1	90.94	5.35	2.84	5.35
Shirts	31	160	5	5.16	76.66	2.48	2.40	2.47
Shoes	32	140	4.38	4.38	346.99	2.48	10.84	10.84
Socks	32	592	18.5	18.5	131.34	.22	4.10	4.10
Suits	29	42	1.31	1.45	195.23	4.65	6.10	6.73
Sweaters	13	13	.41	1	29.56	2.27	.92	2.27
Trousers (extra)	23	50	1.56	2.17	47.22	.94	1.48	2.05
Underwear	32	137	4.28	4.28	90.09	.66	2.82	2.82
Other items					147.91		4.62	
Grand total and average					1,210.02		37.81	
Boys 4 to 6 years of age (47 families, 51 boys).								
Gloves and mittens (pairs)	45	63	1.24	1.4	\$25.08	\$0.40	\$0.49	\$0.56
Hats and caps	45	77	1.51	1.71	57.89	.75	1.14	1.29
Overalls	20	47	.92	2.35	25.29	.54	.50	1.26
Overcoats	29	29	.57	1	137.98	4.76	2.71	4.76
Shirts	24	112	2.2	4.67	49.60	.44	.97	2.07
Shoes	51	217	4.25	4.25	502.77	2.32	9.86	9.86
Socks	50	838	16.43	16.76	190.36	.23	3.73	3.81
Suits	44	172	3.37	3.91	268.54	1.56	5.27	6.10
Sweaters	16	16	.31	1	38.46	2.40	.75	2.40
Trousers (extra)	17	52	1.02	3.06	35.15	.68	.69	2.07
Underwear	50	230	4.51	4.6	152.79	.66	3.00	3.06
Other items					163.25		3.20	
Grand total and average					1,647.16		32.30	
Boys 3 years of age and under (47 families, 55 boys).								
Gloves and mittens (pairs)	32	40	0.73	1.25	\$12.12	\$0.30	\$0.22	\$0.38
Hats and caps	45	71	1.29	1.58	48.29	.68	.88	1.07
Overalls	8	20	.36	2.5	9.68	.48	.18	1.21
Overcoats	26	27	.49	1.04	96.00	3.56	1.75	3.69
Shirts	7	34	.62	4.86	16.19	.48	.29	2.31
Shoes	51	138	2.51	2.71	219.65	1.59	3.99	4.31
Socks	52	639	11.62	12.29	126.47	.20	2.30	2.43
Suits	29	157	2.85	5.41	142.93	.91	2.60	4.93
Sweaters	23	29	.53	1.26	44.53	1.54	.81	1.94
Trousers (extra)	2	11	.2	5.5	2.00	.18	.04	1.00
Underwear	51	286	5.2	5.61	136.51	.48	2.48	2.68
Other items					195.62		3.56	
Grand total and average					1,050.99		19.10	

## AMOUNT SPENT FOR SPECIFIED ARTICLES OF CLOTHING IN ONE YEAR BY 100 REPRESENTATIVE FAMILIES—Continued.

## FEMALES.

Article.	Number of persons for whom article was bought.	Wives (100 families, 100 wives).						
		Articles bought.						
		Total.	Average number.		Cost.		Average expenditure.	
			Per person.	Per person for whom bought.	Total.	Average per article.	Per person.	Per person for whom bought.
Aprons.....	78	294	2.94	3.77	\$119.17	\$0.41	\$1.19	\$1.53
Coats and cloaks.....	36	41	.41	1.14	618.98	15.10	6.19	17.19
Corsets.....	75	112	1.12	1.49	186.15	1.66	1.86	2.48
Dresses.....	76	216	2.16	2.84	757.61	3.51	7.58	9.97
Dress skirts.....	54	72	.72	1.33	219.94	3.05	2.20	4.07
Furs.....	5	5	.05	1	51.50	10.30	.52	10.30
Gloves and mittens.....	69	107	1.07	1.55	104.61	.98	1.05	1.52
Hats.....	75	116	1.16	1.55	331.90	2.86	3.32	4.43
Petticoats.....	67	144	1.44	2.15	133.87	.93	1.34	2.00
Shoes.....	96	198	1.98	2.06	759.15	3.83	7.59	7.91
Stockings.....	98	833	8.33	8.5	215.39	.26	2.15	2.20
Suits.....	27	30	.3	1.11	502.00	16.73	5.02	18.59
Sweaters.....	20	20	.2	1	74.24	3.71	.74	3.71
Underwear and lingerie..	93	545	5.45	5.86	370.82	.68	3.71	3.99
Waists and blouses.....	82	217	2.17	2.65	325.36	1.50	3.25	3.97
Other items.....					433.02		4.33	
Grand total and average.....					5,203.71		52.04	
Girls 15 years of age and over (13 families, 14 girls).								
Aprons.....	8	17	1.21	2.13	\$9.15	\$0.54	\$0.65	\$1.14
Coats and cloaks.....	9	11	.79	1.22	176.98	16.09	12.64	19.66
Corsets.....	11	19	1.36	1.73	19.65	1.03	1.40	1.79
Dresses.....	13	27	1.93	2.08	136.40	5.05	9.74	10.49
Dress skirts.....	8	12	.86	1.5	31.28	2.61	2.23	3.91
Furs.....	1	1	.07	1	7.50	7.50	.54	7.50
Gloves and mittens.....	12	24	1.71	2	19.51	.81	1.39	1.63
Hats.....	14	23	1.64	1.64	59.62	2.59	4.26	4.26
Petticoats.....	13	27	1.93	2.08	19.33	.72	1.38	1.49
Shoes.....	14	40	2.86	2.86	156.19	3.90	11.16	11.16
Stockings.....	14	145	10.36	10.36	43.48	.30	3.11	3.11
Suits.....	3	3	.21	1	30.00	10.00	2.14	10.00
Sweaters.....	8	8	.57	1	21.25	2.66	1.52	2.66
Underwear and lingerie..	13	74	5.29	5.69	37.23	.50	2.66	2.86
Waists and blouses.....	13	42	3	3.23	45.90	1.09	3.28	3.53
Other items.....					56.29		4.02	
Grand total and average.....					869.76		62.13	
Girls 11 to 14 years of age (22 families, 24 girls).								
Aprons.....	4	6	0.25	1.5	\$1.84	\$0.31	\$0.08	\$0.46
Coats and cloaks.....	21	21	.88	1	150.85	7.18	6.29	7.18
Corsets.....	2	3	.13	1.5	1.50	.50	.06	.75
Dresses.....	24	79	3.29	3.29	128.63	1.63	5.36	5.36
Dress skirts.....	5	6	.25	1.2	5.75	.96	.24	1.15
Gloves and mittens.....	18	28	1.17	1.56	14.39	.51	.60	.80
Hats.....	20	27	1.13	1.35	50.17	1.86	2.09	2.51
Petticoats.....	20	56	2.33	2.8	25.28	.45	1.05	1.26
Shoes.....	24	87	3.63	3.63	270.25	3.11	11.26	11.26
Stockings.....	24	304	12.67	12.67	69.33	.23	2.89	2.89
Sweaters.....	9	9	.38	1	23.21	2.58	.97	2.58
Underwear and lingerie..	23	125	5.21	5.43	62.13	.50	2.59	2.70
Waists and blouses.....	15	28	1.17	1.87	26.09	.93	1.09	1.74
Other items.....					103.35		4.31	
Grand total and average.....					932.64		38.86	

**AMOUNT SPENT FOR SPECIFIED ARTICLES OF CLOTHING IN ONE YEAR BY 100  
REPRESENTATIVE FAMILIES—Concluded.**

**FEMALES—Concluded.**

Girls 7 to 10 years of age (34 families, 37 girls).								
Article.	Num- ber of persons for whom article was bought.	Articles bought.						
		Total.	Average number.		Cost.		Average expenditure.	
			Per per- son.	Per per- son for whom bought.	Total.	Average per article.	Per per- son.	Per per- son for whom bought.
Aprons.....	6	12	0.32	2	\$3.28	\$0.27	\$0.09	\$0.55
Coats and cloaks.....	21	22	.59	1.05	123.94	5.63	3.35	5.90
Dresses.....	36	190	5.14	5.28	179.42	.94	4.85	4.98
Dress skirts.....	3	5	.14	1.67	3.00	.60	.08	1.00
Furs.....	2	2	.05	1	6.00	3.00	.16	3.00
Gloves and mittens.....	32	40	1.08	1.25	16.62	.42	.45	.52
Hats.....	33	50	1.35	1.52	63.27	1.27	1.71	1.92
Petticoats.....	28	92	2.49	3.29	41.83	.45	1.13	1.49
Shoes.....	36	133	3.59	3.69	336.20	2.53	9.09	9.34
Stockings.....	36	570	15.41	15.83	138.90	2.44	3.75	3.86
Sweaters.....	13	13	.35	1	34.00	2.62	.92	2.62
Underwear and lingerie..	37	219	5.92	5.92	111.62	.51	3.02	3.02
Waists and blouses.....	10	20	.54	2	12.43	.62	.34	1.24
Other items.....					153.15		4.14	
Grand total and average.....					1,223.06		33.07	
Girls 4 to 6 years of age (25 families, 28 girls).								
Aprons.....	5	26	0.93	5.26	\$7.53	\$0.29	\$0.27	\$1.51
Coats and cloaks.....	21	26	.93	1.24	103.98	4.00	3.71	4.95
Dresses.....	27	151	5.39	5.59	115.05	.76	4.11	4.26
Furs.....	6	7	.25	1.17	29.50	4.21	1.05	4.92
Gloves and mittens.....	22	27	.96	1.23	12.30	.46	.44	.56
Hats.....	26	40	1.43	1.54	56.37	1.41	2.01	2.17
Petticoats.....	23	87	3.11	3.78	30.92	.36	1.10	1.34
Shoes.....	28	91	3.25	3.25	190.73	2.10	6.81	6.81
Stockings.....	28	483	17.25	17.25	90.47	.19	3.23	3.23
Sweaters.....	12	12	.43	1	26.57	2.21	.95	2.21
Underwear and lingerie..	28	168	6	6	73.84	.44	2.64	2.64
Waists and blouses.....	1	1	.04	1	1.00	1.00	.04	1.00
Other items.....					90.44		3.23	
Grand total and average.....					828.70		29.60	
Girls 3 years old and under (41 families, 45 girls).								
Aprons.....	3	26	0.58	8.67	\$6.50	\$0.25	\$0.14	\$2.17
Coats and cloaks.....	28	29	.64	1.04	93.98	3.24	2.09	3.36
Dresses.....	43	275	6.11	6.4	184.61	.67	4.10	4.29
Furs.....	7	7	.16	1	26.98	3.85	.60	3.85
Gloves and mittens.....	24	30	.67	1.25	9.68	.32	.22	.40
Hats.....	34	55	1.22	1.62	55.71	1.01	1.24	1.64
Petticoats.....	34	148	3.29	4.35	56.81	3.84	1.26	1.67
Shoes.....	39	118	2.62	3.03	179.86	1.52	4.00	4.61
Stockings.....	43	433	9.62	10.07	94.00	.22	2.09	2.19
Sweaters.....	25	26	.58	1.04	52.48	2.02	1.17	2.10
Underwear and lingerie..	45	221	4.91	4.91	99.27	.45	2.21	2.21
Other items.....					146.26		3.25	
Grand tota and average.....					1,006.14		22.36	



## FOOD CONTROL.

### FOOD CONTROL IN THE UNITED STATES.

#### BUTTER.

Regulations relating to butter, governing manufacturers, dealers, brokers, and commission merchants, were announced by the United States Food Administration on July 19. These regulations superseded the special regulations effective June 19, 1918, and apply to fresh as well as cold-storage butter. Rule 1 of the new regulations limits to a reasonable advance over cost the price at which butter shall be sold. For the purpose of the rule, costs are defined as including (1) the purchase price; (2) transportation charges, if any; (3) storage charges actually incurred on cold-storage butter; (4) insurance charges actually incurred on cold-storage butter; (5) interest at the current rate on money invested while butter is in cold-storage; (6) actual cost of printing, if the butter is put in print form from tubs or cubes.

Allowances for shrinkage in weight, commissions, or expenses other than those listed are not to be included as items of cost, and the sale of any grade of butter by a dealer other than a manufacturer or retailer at an advance over cost of more than the following maximum margins will be considered as prima facie evidence of a violation of the rule: (a) 1 cent per pound on car-lot sales; (b)  $1\frac{1}{2}$  cents per pound on sales less than a car lot, but amounting to 7,000 pounds or more; (c) 2 cents per pound on sales of less than 7,000 pounds, but amounting to 3,500 pounds or more; (d)  $2\frac{1}{2}$  cents per pound on sales of less than 3,500 pounds, but amounting to 700 pounds or more; (e) 3 cents per pound on sales of less than 700 pounds, but amounting to 100 pounds or more; (f)  $3\frac{1}{2}$  cents per pound on sales of less than 100 pounds.

Rule 2 stipulates that a manufacturer who acts as a wholesaler or jobber shall be subject to the same rules and maximum margins as the latter, provided that in figuring his purchase price he "shall compute the cost of raw materials and the expense of manufacture" or, in the case of cold-storage butter, "consider as his cost the market quotation on the kind and grade of butter placed in cold-storage as quoted in a well-recognized daily commercial price current in the city where and on the day when the goods are placed in storage."

Under rule 3 commissions are limited to three-quarters of a cent per pound and the licensee is required to inform any commission

merchant selling butter for him of the maximum permitted price at which such butter may be sold. The attention of licensees is called to the provisions of general rule 6 that "the licensee, in selling food commodities, shall keep such commodities moving to the consumer in as direct a line as practicable and without unreasonable delay. Resales within the same trade without reasonable justification, especially if tending to result in a higher market price to the retailer or consumer, will be dealt with as an unfair practice." Transactions in which a profit accrues to the dealer without corresponding service will be regarded as clear violations of this rule.

Rule 4 requires that a wholesaler or jobber who purchases butter from another wholesaler or jobber, or from a manufacturer performing the services of a wholesaler or jobber, and who resells to another dealer in his own class, shall notify such dealer of the prior sales of such butter within that class of which he has knowledge.

#### CHEESE.

On American or Cheddar cheese a dealer may, if conditions warrant, add the following margins over his cost: Three-quarters of a cent a pound on car-lot sales;  $1\frac{1}{4}$  cents on sales of 7,000 pounds up to a carload;  $1\frac{1}{2}$  cents on 4,000 to 7,000 pound sales;  $2\frac{1}{2}$  cents on sales of 1,000 to 4,000 pounds; 3 cents on sales between 100 and 1,000 pounds; and  $3\frac{1}{2}$  cents on sales less than 100 pounds. These are the maximum margins that may be added and are made wide enough to provide for exceptional cases where the cost of doing business is high. A dealer is not allowed to charge the limits here given if by doing so he makes an excessive profit.

#### FLOUR.

The temporary plan of flour-milling profit control, which was made effective July 1, has since been superseded by a plan which is expected by the Food Administration to be permanent throughout the 1918-19 crop year, with possibly some modifications under special circumstances. Under the new plan fair prices are established at every mill point in the United States, reasonable allowance above the cost of wheat being made for handling, milling expenses, and profit.

As formulated by the Food Administration, the price schedules give the prices for flour and various kinds of mill feeds that are considered fair for sales, on cash or draft payment basis, in carload lots in bulk at the mill. To find what may be considered a fair price from the consumer's standpoint, it is necessary to add to these prices the cost of packages, which for flour at the present time averages about 65 cents per barrel where shipped in sacks containing 98 or more pounds. Where flour is shipped in small packages, such as 2-pound cotton

sacks, the added cost may run as high as \$2.55 a barrel over the bulk price.

To find the delivered cost of flour in carload lots it is necessary to add the freight from the milling point. At the present time the freight rate from Minneapolis to New York is 69 cents per barrel. When shipments are made in less than carload lots it is considered fair by the Food Administration that additional charges be made because of the additional cost of handling. On sales in less than carload lots 50 cents per barrel is considered a fair addition, while on sales to actual consumers by mills \$1.20 per barrel is allowed.

Jobbers who are not millers are allowed margins of 50 cents to 75 cents per barrel in selling to retailers, who in turn are allowed margins of 80 cents to \$1.20 per barrel over the cost to them. It is stated that one advantage of the new plan is that, as each invoice of the mill must have printed on it the so-called fair prices, it is very easy for any representative of the Food Administration or any buyer to know whether a mill has overcharged.

The schedule of fair prices for flour and feed at principal milling points in carload lots, bulk, at mill, follows:

Milling point.	Flour, per barrel.	Bran, per ton.	Mixed feed, per ton.	Middlings, shorts, and red-dog, per ton.
Boston, Mass.	\$10.65	\$29.66	\$31.91	\$32.66
New York, N. Y.	10.61	30.26	31.51	32.26
Philadelphia, Pa.	10.56	29.86	31.11	31.86
Baltimore, Md.	10.56	29.66	30.91	31.66
Nashville, Tenn.	10.38	27.46	28.71	29.46
Atlanta, Ga.	10.73	31.06	32.31	33.06
Louisville, Ky.	10.30	26.86	28.11	28.86
Durham, N. C.	10.75	31.26	32.51	33.26
New Orleans, La.	10.16	27.26	28.51	29.26
Galveston, Tex.	10.23	29.76	21.01	31.76
Buffalo, N. Y.	10.33	28.16	29.41	30.16
Cleveland, Ohio.	10.33	27.76	29.01	29.76
Duluth, Minn.	10.05	23.36	24.61	25.36
Minneapolis, Minn.	10.01	23.36	24.61	25.36
Grand Forks, N. Dak.	9.77	20.82	22.07	22.82
Great Falls, Mont.	9.33	16.67	17.92	18.67
Aberdeen, S. Dak.	9.65	19.95	21.20	21.95
Wichita, Kans.	9.58	19.41	20.66	21.41
Fort Worth, Tex.	10.12	28.66	29.91	30.66
El Paso, Tex.	10.36	31.16	32.41	33.16
Omaha, Nebr.	9.89	22.26	23.51	24.26
Kansas City, Mo.	9.89	22.26	23.51	24.26
Chicago, Ill.	10.14	25.26	26.51	27.26
St. Louis, Mo.	10.09	24.46	25.71	26.46
Portland, Oreg.	9.95	23.15	24.40	25.15
San Francisco, Cal.	10.15	23.75	25.00	25.75
Los Angeles, Cal.	10.35	24.30	25.55	26.30
San Diego, Cal.	10.27	26.81	28.06	28.81

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Milling point.	Flour, per barrel.	Bran, per ton.	Mixed feed, per ton.	Middlings, shorts, and red-dog, per ton.
Boston, Mass. ....	\$10. 65	\$29. 66	\$31. 91	\$32. 66
New York, N. Y. ....	10. 61	30. 26	31. 51	32. 26
Philadelphia, Pa. ....	10. 56	29. 86	31. 11	31. 86
Baltimore, Md. ....	10. 56	29. 66	30. 91	31. 66
Nashville, Tenn. ....	10. 38	27. 46	28. 71	29. 46
Atlanta, Ga. ....	10. 73	31. 06	32. 31	33. 06
Louisville, Ky. ....	10. 30	26. 86	28. 11	28. 86
Durham, N. C. ....	10. 75	31. 26	32. 51	33. 26
New Orleans, La. ....	10. 16	27. 26	28. 51	29. 26
Galveston, Tex. ....	10. 23	29. 76	21. 01	31. 76
Buffalo, N. Y. ....	10. 33	28. 16	29. 41	30. 16
Cleveland, Ohio. ....	10. 33	27. 76	29. 01	29. 76
Duluth, Minn. ....	10. 05	23. 36	24. 61	25. 36
Minneapolis, Minn. ....	10. 01	23. 36	24. 61	25. 36
Grand Forks, N. Dak. ....	9. 77	20. 82	22. 07	22. 82
Great Falls, Mont. ....	9. 33	16. 67	17. 92	18. 67
Aberdeen, S. Dak. ....	9. 65	19. 95	21. 20	21. 95
Wichita, Kans. ....	9. 58	19. 41	20. 66	21. 41
Fort Worth, Tex. ....	10. 12	28. 66	29. 91	30. 66
El Paso, Tex. ....	10. 36	31. 16	32. 41	33. 16
Omaha, Nebr. ....	9. 89	22. 26	23. 51	24. 26
Kansas City, Mo. ....	9. 89	22. 26	23. 51	24. 26
Chicago, Ill. ....	10. 14	25. 26	26. 51	27. 26
St. Louis, Mo. ....	10. 09	24. 46	25. 71	26. 46
Portland, Oreg. ....	9. 95	23. 15	24. 40	25. 15
San Francisco, Cal. ....	10. 15	23. 75	25. 00	25. 75
Los Angeles, Cal. ....	10. 35	24. 30	25. 55	26. 30
San Diego, Cal. ....	10. 27	26. 81	28. 06	28. 81

Effective August 1, hotels, restaurants, clubs, and dining-car services throughout the country were released by the Food Administrator from their voluntary pledge to use no wheat until the new harvest is gathered. Public eating places will, however, continue to comply with the baking regulations and to serve Victory bread.

While exact figures are not obtainable, it is estimated that between 175,000,000 and 200,000,000 pounds of wheat and its products have been saved by the hotels, restaurants, clubs, and dining cars of the country under their voluntary pledge between October 1, 1917, and August 1, 1918. The educational value of their conservation efforts can not be computed, as many people first received the food-saving message while traveling on dining cars or living in hotels, and carried the news home with them. About 5,000 hotel proprietors gave the wheatless pledge, and many of the 200,000 proprietors of public eating places who claim membership in the Food Administration cut down the use of wheat as much as the nature of their business would permit.

#### SUGAR.

To equalize the cost of the various kinds of sugar and to secure a better distribution of this important commodity to the American public and to our allies, the formation of a sugar equalization board by the Food Administration has been approved by the President. The personnel of the board, as announced, consists of Herbert Hoover, chairman; George Rolph, president; Robert A. Taft, secretary; and Prof. F. W. Taussig, of the United States Tariff Commission; Theodore F. Whitmarsh and George Zabriskie of the Food Administration; Clarence Woolley of the War Trade Board, and William A. Glasgow, jr., chief counsel of the Food Administration, as directors.

The board is incorporated to the extent of \$5,000,000 of capital, which is supplied by the President from his special funds, in order to enable it to deal with facility in foreign sugars and otherwise, and the whole stock will be held by the President for the United States Government. The object, it is stated, is to absorb the high peaks of cost in sugar production and to make a small margin on the low cost of certain foreign sugars which may be purchased, thus securing an equalization of the price to the public on a lower level than would otherwise be possible. It is also expected that the arrangement will secure a more even distribution of sugar throughout the United States.

Owing to the increased cost of sugar production, particularly the increased cost of beets, bags, labor, and transportation, it is expected that the price of sugar will be advanced in the latter part of the year. By the creation of this board, however, it is believed possible to work out a price for the public upward of 1 cent per pound less than would be the case if the price of sugar were advanced sufficiently to cover the high peaks in costs from all quarters.

Basing its action on a careful survey of the world sugar situation and compilation of the immediate demands, the Food Administration calls on the American public to restrict the monthly consumption



of sugar in the home to two pounds per person from August 1 to January 1. This replaces the former allowance of three pounds per person per month and includes all sugar used on the table and in cooking. A similar order has been issued to public eating places, limiting their use of sugar to two pounds for every 90 meals served.

To insure an equitable distribution of sugar in the United States, a scheme of allocation to the several States, based on population and taking into account the needs of sugar-using industries, has been adopted. Within each State the details of distribution will be left to the Federal food administrators.

Responding to the request of the Food Administration that the Nation go on a sugar ration of two pounds per person per month, the dining-car services of the country have cut down the allowance to patrons to two pounds for every 90 meals served. One service of sugar will be limited to two half-lumps, or one teaspoonful of granulated, and patrons will be given their choice of either portion, but may not have both. The 2 pounds per month allowance may be expressed in popular terms as  $6\frac{2}{3}$  teaspoonfuls, level full, daily, but this must include sugar used for preparation of food as well as table service. The dining-car allowance takes this fact into consideration.

#### PRUNES AND RAISINS.

"Maximum reasonable prices" to growers for the 1918 prune and raisin crops, which were recommended by growers in California, have been accepted by the Food Administration. Under the agreement prune growers are to receive not more than  $8\frac{1}{2}$  cents per pound, net, and growers of raisin grapes will be given a maximum of  $5\frac{1}{2}$  cents per pound "in the sweat box." It is believed that these prices will yield a stimulative profit to persons engaged in the industry without permitting them to profiteer.

#### RICE.

Agreements with regard to handling the 1918 rice crop have been completed between the rice millers of the country and the Food Administration. According to these agreements millers will pay certain definite prices to the growers for rough rice and will not sell the clean rice at more than prices named in the contract, ranging from  $7\frac{3}{4}$  cents per pound for choice Japan to  $9\frac{1}{2}$  cents for fancy Honduras. It is hoped that the result will be a complete stabilization of the rice industry and the distribution of rice to the consumer without speculation or manipulation at a reasonable margin of profit. In the opinion of the Food Administration, consumers will be able to purchase rice at a price of approximately 10 to 12 cents per pound, depending on remoteness from the milling centers. Appointment of a committee consisting of E. A. Eignus and J. E. Broussard, Beau-

mont, Tex., and J. H. Roman, New Orleans, La., to assist in carrying out the terms of the agreements was announced by the Food Administration on July 26. This committee will supervise the grading and classification of rough rice, as set forth in the agreements, and will have general control of valuation committees which will carry out the details in the various districts.

#### SHIP RATIONS.

The following standard daily ration per man, expressed in ounces, has been recommended by the Food Administration to the War Trade Board in determining what stores ships shall be allowed to take aboard: Butter and its substitutes, 2; beef, 16; pork, 6; lard, 4; wheat products, 10; wheat substitutes, 8; sugar, 3; groceries, 10. In addition applicants may ask for veal, mutton, lamb, fish, poultry and game, milk, and eggs, but the total of these articles added to those listed above must not be more than 5 pounds per man per day. Potatoes and fresh vegetables and fruits may swell the allowance to not more than 9 pounds.

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#### CONTROL OF SALE AND DISTRIBUTION OF SUGAR IN THE DISTRICT OF COLUMBIA.

The Federal Food Administration for the District of Columbia has further increased its activities in the past month by the addition of a sugar department. Four million pounds of sugar were consumed in the District during August, 1917, while the allowance for August, 1918, has been reduced to 1,703,000 pounds. This situation necessitates careful supervision to insure equal distribution, not only among individual consumers but also among the manufacturers of goods requiring sugar, and for this purpose a sugar administrator was appointed.

Any person who uses sugar in large quantities must apply to him for a certificate and file a statement of the amount used last quarter. In the case of the manufacturers of nonessentials, such as candy, soft drinks, and fountain sirups, the statement must be sworn to before a notary. Certificates are then issued for 50 per cent of the amount of sugar used during the same period last year. Ice-cream manufacturers are cut down to 75 per cent only, since ice cream is classed with the "essentials" by the United States Food Administration. Bakers are limited to 70 per cent of the amount used last quarter. All grocers, hotel, restaurant, and boarding-house keepers serving as many as 25 guests must file statements.

Grocers were at first entitled to two-thirds of their normal needs, but in August were cut to 70 per cent of that amount. Hotels and restaurants are allowed 2 pounds for every 90 meals served. The

housewife continues to get her sugar as formerly in 2 pound lots only, and at the rate of 2 pounds per person per month. Each grocer is advised to sell to his regular customers only and to send in a record of these sales to the Food Administrator.

The 2-pound allotment for household purposes is not intended to cover the sugar used in canning and preserving, and sugar certificates for as much as 25 pounds may be had by anyone upon application to his district representative.

The work of the fair-price publication committee is continuing as formerly. A representative of the Federation of Federal Employees has been added to the committee and several new inspectors to the inspection force. Housewives are urged to report any violations and to send their sale slips to the District food administrator. In one of the principal markets a large sign has been posted over a stand as follows: "At the instance of the Food Administrator we have reduced the price of wheat flour from 9 to 7 cents and corn meal from 10 to 6 cents to conform to the fair-price list." Grocers prefer almost any form of punishment to this undesirable kind of advertising, and several have reported that the notices displayed in their stores announcing them guilty of profiteering have had disastrous effects upon their sales. A number of larger stores, however, are posting copies of the fair-price list, stating that they are charging those prices, and one market which has been notorious for its high prices now displays the following sign in large letters across one end of the market: "All dealers in this market sell at prices quoted by the Federal Food Administrator in his fair-price list published in the daily papers."

One of the most difficult problems the District of Columbia Food Administrator has had to handle has been the ice situation. Early in March the ice plants were notified to manufacture and the storage warehouses to store ice to their full capacity. A committee of ice men was appointed, with the Food Administrator acting as chairman, to manage the plants and the distribution of ice. A price was agreed upon which was not deemed extortionate by the administrator. This committee still meets several times each week to decide upon all ice questions. All complaints of failures or refusals to deliver ice which are sent to the Food Administration are taken up at these meetings and later are referred to the proper persons for adjustment.

The ice situation, already serious because of the unusual demand resulting from the increase in population and because of the scarcity and quality of labor, was suddenly aggravated by the hot wave and threatened a real crisis. To meet this situation, carloads and barges of ice hurried down from the north and all manufacturers of ice cream were ordered to close down until further notice.



FOOD REGULATIONS IN FRANCE.<sup>1</sup>

The minister of agriculture and food supply has temporarily fixed the maximum price of eggs at 30 centimes each (69.5 cents per dozen), at the place of production. This price may be lowered if circumstances warrant such change. Prefects have the authority to fix the maximum price, according to local conditions, in the principal markets of their respective departments. The decree applies to all parts of the country.

The same official reports as follows:

The measures restricting the consumption of meats, in force since May 13 last, have had excellent results. During the first month of their operation a saving of 25 per cent, as compared with the consumption of the corresponding month of 1915, has been effected. It is believed that equal results will be shown for the two-month period ending July 15.

The decreased consumption for the period will approximate 28,500,000 kilograms (62,831,100 pounds), enough to supply 80,000,000 normal rations to the army. Another beneficial result has been effected, as animals have been kept a longer time on pasture and thus produced greater weight, which will become noticeable in succeeding months. There has also been an increase in importation of refrigerated and conserved meats. For these reasons the minister has decided to repeal the restrictive measures from July 20.

On June 20, the maximum wholesale price of potatoes at Paris, as agreed upon by the food administration, producer, and merchants, was fixed at 50 francs per 100 kilograms (\$2.62 per bushel) for potatoes grown in Brittany, and 60 francs per 100 kilograms (\$3.15 per bushel) for those grown near Paris. These prices were to hold until July 20, when it was hoped that prices might be lowered, but owing to the drought this was found impractical and a further decision was reached on July 17, fixing the price of any grade at 50 francs per 100 kilograms (\$2.62 per bushel) at wholesale and 60 francs per 100 kilograms (\$3.15 per bushel) at retail.

An ordinance effective July 15, in the Department of the Seine, fixed the price of sugar at retail and in lots less than wholesale (*demi-gros*) as follows: Refined, broken, in cartons or packages containing 5 kilograms (11 pounds) or more at 2.05 francs per kilo (18 cents per pound); refined, loaf, in any shape, 2 francs per kilo (17.5 cents per pound); and refined powdered, 2.05 francs per kilo (18 cents per pound). Prices of unrefined sugar for each of three commercial grades was fixed at 1.9 francs per kilo (16.6 cents per pound). Slightly increased prices are allowed on sales in quantities less than one kilo (2.2 pounds).

Maximum wholesale prices were fixed by a decree issued a few days prior to this date.

<sup>1</sup> Data taken from *La République Française* for July, 11, 16, 17, and 21, 1918, Paris.

## WAGES AND HOURS OF LABOR.

### INCREASE OF WAGES IN MECHANICAL DEPARTMENTS OF RAILROADS UNDER FEDERAL CONTROL.

Pursuant to the findings and recommendations of the Railroad Wage Commission, and supplementing General Order No. 27, both of which were published in the MONTHLY REVIEW for June, 1918 (pp. 1-45), the Director General of Railroads issued on July 25, 1918, an order (Supplement No. 4) fixing wages, hours, and other conditions of employment of employees in the mechanical departments of the railroads under Federal control.<sup>1</sup> Briefly stated, the order contains the following provisions as to wages:

1. Machinists, boiler makers, blacksmiths, sheet-metal workers, molders, and first-class electrical workers, 68 cents per hour.
2. Car men and second-class electrical workers, 58 cents per hour.
3. Helpers, 45 cents per hour.
4. Foremen paid on hourly basis, 5 cents per hour more than respective crafts.
5. Foremen paid on monthly basis, increase \$40 per month, minimum \$155 and maximum \$250.

The new rates are retroactive to January 1, 1918, and beginning August 1, 1918, the eight-hour day shall prevail with time and one-half for overtime, Sunday work, and seven specified holidays.

Article I of the order pertains to classification of employees. Articles II, III, IV, V, and VI deal with wages, hours, conditions of employment, and interpretation of the order, and are reproduced in full:

#### SUPPLEMENT NO. 4 TO GENERAL ORDER NO. 27.

##### ARTICLE II.—RATES AND METHOD OF APPLICATION.

SECTION 1. For the above classes of employees (except carmen, second-class electrical workers, and all apprentices and helpers), who have had four or more years' experience and who were on January 1, 1918, receiving less than 55 cents per hour, establish basic minimum rate of 55 cents per hour, and to this basic minimum rate and all other hourly rates of 55 cents per hour and above, in effect as of January 1, 1918, add 13 cents per hour, establishing a minimum rate of 68 cents per hour.

SEC. 1-A. For carmen and second-class electrical workers who have had four or more years' experience and who were on January 1, 1918, receiving less than 45 cents

<sup>1</sup> On August 9 Supplement No. 5 to General Order No. 27 was issued by the Director General of Railroads making the provisions of Supplement No. 4 apply to employees of the Pullman Co. The order is as follows:

Effective August 1, 1918, the wages, hours, and other conditions of employment of employees of the operating department of the Pullman Co. will be the same as those fixed in Supplement No. 4 to General Order No. 27 for corresponding classes of railroad employees, but none of the provisions named therein will be retroactive prior to August 1, 1918.

per hour, establish a basic minimum rate of 45 cents per hour, and to this minimum basic rate and all other hourly rates of 45 cents and above, in effect as of January 1, 1918, add 13 cents per hour, establishing a minimum rate of 58 cents per hour.

SEC. 1-B. Rates of compensation exceeding the minimum rates established herein to be preserved; the entering of employees in the service or the changing of their classification or work shall not operate to establish a less favorable rate or condition of employment than herein established.

SEC. 1-C. The Director General recognizes that the minimum rates established herein may be exceeded in the case of men of exceptional skill, who are doing special high-grade work, which has heretofore enjoyed a differential. Such cases would include pattern makers, passenger car repair men, oxyacetylene, thermit, and electric welding in car repair work, etc., and should be presented to the Board of Railroad Wages and Working Conditions for recommendation as provided in General Order No. 27.

SEC. 2. The above classes of employees (except carmen, second-class electrical workers, and all apprentices and helpers) who have had less than four years' experience in the work of their trade will be paid as follows:

- (a) One year's experience or less, 50 cents per hour.
- (b) Over one year's and under two years' experience, 53 cents per hour.
- (c) Over two years' and under three years' experience, 57 cents per hour.
- (d) Over three years' and under four years' experience, 62 cents per hour.

SEC. 2-A. Carmen and second-class electrical workers who have had less than four years' experience in the work of their trade will be paid as follows:

- (a) One year's experience or less, 48½ cents per hour.
- (b) Over one year's and under two years' experience, 50½ cents per hour.
- (c) Over two years' and under three years' experience, 52½ cents per hour.
- (d) Over three years' and under four years' experience, 54½ cents per hour.

SEC. 2-B. At the expiration of the four-year period the employees mentioned in section 2 and section 2-A shall receive the respective minimum of their crafts.

### ARTICLE III.

SECTION 1. Regular apprentices between the ages of 16 and 21, engaging to serve a four-year apprenticeship, shall be paid as follows: Starting-out rate and for the first six months, 25 cents per hour, with an increase of 2½ cents per hour for each six months thereafter up to and including the first three years; 5 cents per hour increase for the first six months of the fourth year, and 7½ cents per hour for the last six months of the fourth year.

SEC. 1-A. If retained in the service after the expiration of their apprenticeship, apprentices in the respective trades shall receive not less than the minimum rate established for their craft.

SEC. 2. Helpers in the basic trades herein specified will be paid 45 cents per hour.

SEC. 3. Helper apprentices will receive the minimum helper rate for the first six months, with an increase of 2 cents per hour for every six months thereafter until they have served three years.

SEC. 3-A. Fifty per cent of the apprentices may consist of helpers who have had not less than two consecutive years' experience in their respective trades in the shop on the division where advanced. In the machinist, sheet metal worker, electric and molder trades the age limit for advancement will be 25 years; in the boiler maker, blacksmith, and carmen trades 30 years.

SEC. 4. In the locomotive and car departments gang foremen or leaders and all men in minor supervisory capacity and paid on an hourly basis will receive 5 cents per hour above the rates provided for their respective crafts.

SEC. 5. The supervisory forces of the locomotive and car departments, paid on a monthly basis and exercising supervision over the skilled crafts, will be paid an



increase of \$40 per month in addition to the monthly rate as of January 1, 1918, with a minimum of \$155 per month and a maximum of \$250 per month.

#### ARTICLE IV.—GENERAL APPLICATION.

SECTION 1. Each railroad will, in payments to employees on and after July 1, 1918, include these increases therein.

SEC. 1-A. The increases in wages and the rates established herein shall be effective as of January 1, 1918, and are to be paid according to the time served to all who were then in the railroad service or who have come into such service since and remained therein. A proper ratable amount shall also be paid to those who for any reason since January 1, 1918, have been dismissed from the service, but shall not be paid to those who have left it voluntarily. Men who have left the railroad service to enter the military service of the Army or Navy shall be entitled to the pro rata increase accruing on their wages up to the time they left, and the same rule shall apply to those who have been transferred from one branch of the railroad service or from one road to another.

SEC. 2. The hourly rates named herein are for an eight-hour day and one and one-half time will be paid for all overtime, including Sundays and the following holidays: New Year's Day, Washington's Birthday, Decoration Day, Fourth of July, Labor Day, Thanksgiving, and Christmas.

SEC. 3. While the specific rates per hour named herein will be retroactive to January 1, 1918, the special overtime provisions established in section 2 of this article will be effective as of August 1, 1918, with the provision that in computing overtime to determine back pay to January 1, 1918, overtime will be paid at a pro rata rate for all overtime worked in excess of the hours constituting the recognized day or night shift, except where higher overtime rate basis exists, or has been applied, in which event the more favorable condition shall be the basis of computing back pay accruing from this order.

SEC. 4. Employees, except monthly salaried employees, coming within the scope of this order sent out on the road for emergency service, shall receive continuous time from the time called until their return, as follows: Overtime rates for all overtime hours whether working, waiting, or traveling, and straight time for the recognized straight time hours at home stations, whether working, waiting, or traveling, except that after the first 24 hours, if the work is completed or they are relieved for five hours or more, such time shall not be paid for, provided that in no case shall an employee be paid for less than eight hours on week days and eight hours at one and one-half time for Sundays and holidays for each calendar day. Where meals and lodging are not provided by the railroad an allowance will be made for each meal or lodging. Employees will receive allowance for expenses not later than the time when they are paid for the service rendered.

SEC. 5. Employees specified herein when sent from home point to temporarily fill vacancy or perform work at outside division points, will be paid straight time and overtime rates as per shop rules, including going and return trip, in addition to which they will be paid pro rata at the rate of \$2 per day for meals and lodging.

SEC. 6. Carmen stationed at points requiring only one employee on day shift or night shift, or day and night shifts, shall be paid 8 hours at not less than the hourly rate provided herein.

SEC. 7. Mechanics now regularly assigned to perform road work and paid on a monthly basis shall be paid for 8 hours at not less than the hourly rate provided herein.

SEC. 8. Employees on a piecework basis shall receive not less than the minimum rate per hour awarded to the hourly workers, including time and one-half for overtime, as hereinbefore provided; otherwise piecework rates provided in General Order No. 27 shall apply.

SEC. 9. The application of this order shall not, in any case, operate to establish a less favorable wage rate than in effect January 1, 1918.

ARTICLE V.—PAYMENTS FOR BACK TIME.

SECTION 1. As promptly as possible the amount due in back pay from January 1, 1918, in accordance with the provisions of this order, will be computed and payment made to the employees, separately from the regular monthly payments, so that employees will know the exact amount of these back payments.

SEC. 2. Recognizing the clerical work necessary to make these computations for back pay, and the probable delay before the entire period can be covered, each month, beginning with January, shall be computed as soon as practicable, and, as soon as completed, payments will be made.

ARTICLE VI.—INTERPRETATION OF THIS ORDER.

SECTION 1. Railway Board of Adjustment No. 2 is authorized by Article IX of General Order No. 27 to perform the following duty:

"Wages and hours, when fixed by the Director General, shall be incorporated into existing agreements on the several railroads, and should differences arise between the managements and the employees of any of the railroads as to such incorporation, such questions of difference shall be decided by the Railway Board of Adjustment No. 2 when properly presented, subject always to review by the Director General."

SEC. 2. In addition to the foregoing other questions arising as to the intent or application of this order in respect to the classes of employees within the scope of Railway Board of Adjustment No. 2 shall be submitted to such board, which board shall investigate and report its recommendations to the director general.

SEC. 3. All rates applied under this order shall be filed by the regional directors with the Board of Railroad Wages and Working Conditions.

SEC. 4. The rates, increases, and other conditions of employment herein established for the classes of employees herein specified shall supersede the rates, increases and other conditions established by General Order 27, except as provided in section 8, Article IV.

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UNION SCALES IN THE BUILDING, METAL AND GRANITE AND STONE TRADES, AND IN FREIGHT HANDLING.

For a number of years the Bureau of Labor Statistics has published annually the union scale of wages and hours of labor of all of the important trades and occupations working at time rates in the larger cities of the country.

Some of the material for 1918 is now tabulated, and as it is of decided interest, and may be of much service, the figures for the occupations of the building, freight handling, granite and stone, and metal trades for the cities covered in the North Atlantic States are here presented. The scale reported is as of May 15, 1918. Notes indicate known changes since that date. The scale as of May 15, 1917, is printed in parallel columns so that comparison may be made between the two years.

Under authority of the United States Railroad Administration Act the Director General of Railroads, on July 25, 1918, in Supplement No. 4 to General Order No. 27, made an award fixing the rates and hours of shopmen in the railroads under Government control.<sup>1</sup>

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<sup>1</sup> See pp. 131 to 134 of this issue of the MONTHLY LABOR REVIEW.

In this supplemental order a minimum rate of 68 cents per hour was awarded to the following craftsmen included in the table below, working in railroad shops: Blacksmiths, boiler makers, machinists, and sheet-metal workers. Helpers in the above trades were awarded 45 cents per hour. The principle of the basic eight-hour day was recognized and the award was made retroactive to January 1, 1918, therefore the awarded scale is included in this table, which, as stated, reports as of May 15, 1918. Time and one-half for overtime and for work on Sundays and holidays, to become effective on August 1, 1918.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917.

## BUILDING TRADES.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holi- day.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
ASBESTOS WORKERS.										
	Cts.	Dolls.					Cts.	Dolls.		
Boston, Mass.....	62.5	27.50		2	8-4-44	12	53.0	23.32		8-4-44
Buffalo, N. Y.....	56.3	27.00	1 1½	2	8-8-48	3	53.1	25.50	2	8-8-48
Newark, N. J.....	62.5	27.50	2	2	8-4-44	12	62.5	27.50		8-4-44
New York, N. Y.....	62.5	27.50	2	2	8-4-44	12	62.5	27.50		8-4-44
Philadelphia, Pa.....	65.0	28.60	2 1½	2	8-4-44	12	53.1	23.38		8-4-44
Pittsburgh, Pa.....	62.5	27.50	1½	2	8-4-44	12	59.4	26.13		8-4-44
Providence, R. I.....	62.5	27.50	2	2	8-4-44	12	50.0	22.00		8-4-44
Rochester, N. Y.....	50.0	22.00	1½	2	8-4-44	12	50.0	22.00		8-4-44
Springfield, Mass.....	62.5	27.50	2	2	8-4-44	12	53.0	23.32		8-4-44
BRICKLAYERS.										
Boston, Mass.....	80.0	35.20	2	2	8-4-44	12	70.0	30.80		8-4-44
Bridgeport, Conn.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60		8-4-44
Buffalo, N. Y.....	75.0	33.00	1½	2	8-4-44	8	70.0	30.80		8-4-44
Fall River, Mass.....	75.0	33.00	1½	1 1½	8-4-44	12	65.0	28.60		8-4-44
Manchester, N. H.....	75.0	33.00	1 1½	2	8-4-44	12	65.0	28.60		8-4-44
Newark, N. J.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00		8-4-44
New Haven, Conn.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60		8-4-44
New York, N. Y.....	81.3	35.75	2	2	8-4-44	12	75.0	33.00		8-4-44
Philadelphia, Pa.....	80.0	35.20	2	2	8-4-44	12	70.0	30.80		8-4-44

<sup>1</sup> Double time after midnight.

<sup>2</sup> 44 hours per week June to August, inclusive.

<sup>3</sup> Double time after 10 p. m. and on Saturday afternoon.

<sup>4</sup> For Labor Day, triple time.

<sup>5</sup> Scale became 72 cents on June 1, 1918.

<sup>6</sup> And on Saturday afternoon.

<sup>7</sup> Scale became 75 cents on Sept. 1, 1918.

<sup>8</sup> And on Saturday afternoon, Mar. 16 to Nov. 15, inclusive.

<sup>9</sup> Forty-eight hours per week, Nov. 16 to Mar. 15, inclusive.

<sup>10</sup> For Sundays; for holidays double time.

<sup>11</sup> Scale became 80 cents on July 1, 1918.

<sup>12</sup> On new work; on repair work, time and one-half.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour,	Per week, full time.	For over- time, regu- lar rate mul- tiplied by—	For Sun- days and holi- days, regu- lar rate mul- tiplied by—			Per hour.	Per week, full time.		
BRICKLAYERS—concluded.										
	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Pittsburgh, Pa.....	75.0	33.00	1½	2	8-4-44	12	75.0	33.00	8-4-44	
Portland, Me.....	70.0	30.80	1½	2	8-4-44	12	65.0	28.60	8-4-44	
Providence, R. I.....	70.0	30.80	1½	2	8-4-44	12	70.0	30.80	8-4-44	
Rochester, N. Y.....	70.0	30.80	1½	2	8-4-44	12	70.0	30.80	8-4-44	
Scranton, Pa.....	75.0	33.00	1½	2	8-4-44	12	70.0	30.80	8-4-44	
Springfield, Mass.....	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44	
Worcester, Mass.....	75.0	33.00	1½	2	8-4-44	12	65.0	28.60	8-4-44	
BRICKLAYERS: SEWER WORK.										
Boston, Mass.....	80.0	35.20	2	2	8-4-44	12	75.0	33.00	8-4-44	
Bridgeport, Conn.....	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44	
New Haven, Conn.....	87.5	38.50	2	2	8-4-44	12	68.8	30.25	8-4-44	
Philadelphia, Pa.....	85.0	37.40	2	2	8-4-44	12	75.0	33.00	8-4-44	
Providence, R. I.....	80.0	35.20	1½	2	8-4-44	12	80.0	35.20	8-4-44	
Rochester, N. Y.....	75.0	33.00	1½	2	8-4-44	12	75.0	33.00	8-4-44	
BUILDING LABORERS.										
Boston, Mass.....	40.0	19.20	1	2	8-8-48	.....	37.5	18.00	8-8-48	
Scaffold men.....	45.0	21.60	1½	2	8-8-48	.....	40.0	19.20	8-8-48	
Buffalo, N. Y.....	45.0	22.95	1½	2	8½-8½-51	.....	40.0	20.40	8½-8½-51	
New York, N. Y.:										
Excavating.....	40.5	19.44	2	2	8-8-48	.....	30.0	14.40	8-8-48	
Mosaic and terrazzo work	40.6	17.88	2	2	8-4-44	12	37.5	16.50	8-4-44	
Stonemasons' work,										
Bronx.....	47.0	20.68	1½	2	8-4-44	12	40.0	17.60	8-4-44	
Stonemasons' work,										
Brooklyn.....	47.0	20.68	1	1½	8-4-44	12	35.0	15.40	8-4-44	
Philadelphia, Pa.....	45.0	19.80	1½	2	8-4-44	12	35.0	15.40	8-4-44	
Pittsburgh, Pa.....	45.0	21.60	1½	2	8-8-48	.....	30.0	14.40	8-8-48	
Portland, Me.....	50.0	22.00	1½	2	8-4-44	12	40.0	17.60	8-4-44	
Providence, R. I.....	35.0	17.50	1½	2	9-5-50	12	30.0	15.00	9-5-50	
Rochester, N. Y.....	40.0	17.60	1½	2	8-4-44	12	32.0	14.08	8-4-44	
Excavating.....	40.0	17.60	1½	2	8-4-44	12	30.0	14.40	8-8-48	
Scranton, Pa.....	30.0	14.40	1½	2	8-8-48	.....	30.0	14.40	8-8-48	
Excavating.....	27.5	14.85	1½	2	9-9-54	.....	27.5	14.85	9-9-54	
Springfield, Mass.....	37.5	18.00	1½	2	8-8-48	.....	37.5	18.00	8-8-48	
Scaffold builders.....	50.0	22.00	2	2	8-4-44	12	45.0	19.80	8-4-44	

<sup>1</sup> Scale became 90 cents on June 1, 1918.<sup>2</sup> And on Saturday afternoon.<sup>3</sup> Double time after 6 p. m.<sup>4</sup> Double time after 7 p. m. and on Saturday afternoon.<sup>5</sup> Forty-eight hours per week, October to April, inclusive.<sup>6</sup> Scale became 80 cents on Sept. 1, 1918.<sup>7</sup> On new work; on repair work, time and one-half.<sup>8</sup> Scale became 47.7 cents on June 10, 1918.<sup>9</sup> Scale became 50 cents on July 1, 1918.<sup>10</sup> Scale became 42 cents on June 1, 1918.<sup>11</sup> Double time after midnight, and on Saturday after 5 p. m.<sup>12</sup> Scale became 50 cents on May 22, 1913.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
CARPENTERS.										
	Cts.	Dolls.					Cts.	Dolls.		
Boston, Mass.....	165.0	26.00	2	2	8-0-40	12	60.0	26.40	8-4-44	
Stair builders.....	165.0	26.00	2	2	8-0-40	12	57.0	25.08	8-4-44	
Bridgeport, Conn.....	400.0	26.40	2	2	8-4-44	12	60.0	26.40	8-4-44	
Buffalo, N. Y.....	70.0	30.80	2	2	8-4-44	12	62.5	27.50	8-4-44	
Fall River, Mass.....	62.5	27.50	2	2	8-4-44	12	50.0	22.00	8-4-44	
Manchester, N. H.....	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Newark, N. J.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
New Haven, Conn.....	65.0	28.60	2	2	8-4-44	12	55.0	24.20	8-4-44	
New York, N. Y.:										
Bronx, Brooklyn, Queens										
and Richmond.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
Manhattan.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44	
Philadelphia, Pa.....	70.0	30.80	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Pittsburgh, Pa.....	77.0	31.24	1½	2	8-4-44	12	71.0	31.24	8-4-44	
Portland, Me.....	94.0	19.36	1½	2	8-4-44	12	42.0	18.48	8-4-44	
Providence, R. I.....	60.0	26.40	2	2	8-4-44	12	50.0	22.00	8-4-44	
Rochester, N. Y.....	60.0	26.40	1½	2	8-4-44	12	56.3	24.75	8-4-44	
Scranton, Pa.....	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Springfield, Mass.....	65.0	28.60	2	2	8-4-44	12	55.0	24.20	8-4-44	
Worcester, Mass.....	162.5	27.50	1½	2	8-4-44	12	52.0	22.80	8-4-44	
CARPENTERS: MILLWRIGHTS.										
Buffalo, N. Y.....	75.0	33.00	2	2	8-4-44	12	67.5	29.70	8-4-44	
Newark, N. J.....	147.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
New York, N. Y.....	168.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
CARPENTERS: PARQUETRY- FLOOR LAYERS.										
Boston, Mass.....	65.0	26.00	2	2	8-0-40	12	60.0	26.40	8-4-44	
CARPENTERS: WHARF AND BRIDGE.										
Boston, Mass.....	1753.0	23.32	2	2	8-4-44	12	53.0	23.32	8-4-44	
Buffalo, N. Y.....	65.0	28.60	1½	2	8-4-44	12	48.5	23.28	8-8-48	
New York, N. Y.....	62.3	27.50	2	2	8-4-44	12	56.3	24.75	8-4-44	

1 Scale became 75 cents on June 1, 1918.

2 Do not work on Saturday.

3 40 hours per week, June to September, inclusive.

4 Scale became 70 cents on June 1, 1918.

5 Work on Saturday afternoon prohibited.

6 Double time after 10 p. m. and on Saturday afternoon.

7 Scale became 80 cents on June 1, 1918.

8 And on Saturday afternoon.

9 55 to 71 cents per hour, war-time wages.

10 Double time after midnight.

11 And on Saturday after 5 p. m.

12 Scale became 65 cents on Sept. 1, 1918.

13 Double time after 9 p. m. and on Saturday afternoon.

14 Scale became 75 cents on July 1, 1918.

15 Scale became 75 cents on Sept. 1, 1918.

16 5 days, 40 hours per week, June to September, inclusive.

17 Scale became 65 cents on June 1, 1918.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
CEMENT FINISHERS.										
	Cts.	Dolls.					Cts.	Dolls.		
Boston, Mass.	70.0	30.80	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Bridgeport, Conn.	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
Buffalo, N. Y.	65.0	31.20	1½	2	8-8-48		50.0	24.00	8-8-48	
Fall River, Mass.	75.0	33.00	1½	1½	8-4-44	12	65.0	28.60	8-4-44	
Manchester, N. H.	75.0	33.00	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Newark, N. J.	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44	
New Haven, Conn.	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
New York, N. Y.	70.0	30.80	2	2	8-4-44	12	70.0	30.80	8-4-44	
Philadelphia, Pa.	65.0	28.60	1½	2	8-4-44	12	55.0	24.20	8-4-44	
Pittsburgh, Pa.	75.0	33.00	1½	2	8-4-44	12	56.3	24.75	8-4-44	
Providence, R. I.	62.5	27.50	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Rochester, N. Y.	70.0	30.80	1½	2	8-4-44	12	70.0	30.80	8-4-44	
Springfield, Mass.	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44	
CEMENT FINISHERS' HELPERS.										
Newark, N. J.	45.0	19.80	2	2	8-4-44	12	45.0	19.80	8-4-44	
New York, N. Y.	43.8	19.25	1½	1½	8-4-44	12	37.5	16.50	8-4-44	
COMPOSITION ROOFERS.										
Boston, Mass.	65.6	28.88	2	2	8-4-44	12	55.0	24.20	8-4-44	
Kettlemen and ladlemen.	60.0	26.40	2	2	8-4-44	12	50.0	22.00	8-4-44	
Paperlayers.	60.0	26.40	2	2	8-4-44	12	43.8	19.25	8-4-44	
Newark, N. J.	62.5	27.50	2	2	8-4-44	12	55.0	24.20	8-4-44	
New York, N. Y.	53.1	23.38	2	2	8-4-44	12	46.9	20.63	8-4-44	
Philadelphia, Pa.	52.5	23.40	1½	2	8-4-44	12	36.3	15.99	8-4-44	
Pittsburgh, Pa.	60.0	26.40	1	10 2	8-4-44	12	45.0	19.80	8-4-44	
Kettlemen.	55.0	24.20	1½	2	8-4-44	12	35.6	17.60	9-4-49½	
Felt setters and roll run- ners.	55.0	24.20	1	10 2	8-4-44	12	40.0	17.60	8-4-44	
Rochester, N. Y.	50.0	22.00	1½	2	8-4-44	12	46.9	20.63	8-4-44	
Scranton, Pa.	53.1	25.50	1½	2	8-8-48		46.9	22.50	8-8-48	
Second man.	46.9	22.50	1½	2	8-8-48		40.6	19.50	8-8-48	
COMPOSITION ROOFERS' HELPERS.										
Boston, Mass.	43.8	19.25	2	2	8-4-44	12	37.5	16.50	8-4-44	
Newark, N. J.	50.0	22.00	2	2	8-4-44	12	45.0	19.80	8-4-44	
Scranton, Pa.	37.5	18.00	1½	2	8-8-48		34.4	16.50	8-8-48	
ELEVATOR CONSTRUCTORS.										
Boston, Mass.	75.0	33.00	2	2	8-4-44	12	67.5	29.70	8-4-44	
Buffalo, N. Y.	69.0	33.12	2	2	11 8-8-48	4	57.5	27.60	11 8-8-48	
New York, N. Y.	69.0	30.36	2	2	8-4-44	12	69.0	30.36	8-4-44	
Philadelphia, Pa.	75.0	33.00	2	2	8-4-44	12	72.5	31.90	8-4-44	
Pittsburgh, Pa.	73.8	32.45	2	2	8-4-44	12	72.5	31.90	8-4-44	
Providence, R. I.	62.5	27.50	2	2	8-4-44	12	56.3	24.75	8-4-44	

<sup>1</sup> Scale became 75 cents on June 1, 1918.

<sup>2</sup> And on Saturday afternoon.

<sup>3</sup> Scale became 75 cents on Sept. 1, 1918.

<sup>4</sup> On Sunday; on holidays, double time.

<sup>5</sup> Double time after midnight.

<sup>6</sup> Scale became 80 cents on July 1, 1918.

<sup>7</sup> Double time after 10 p. m. and on Saturday afternoon.

<sup>8</sup> Double time after 7 p. m. and on Saturday afternoon.

<sup>9</sup> Scale became 50 cents on July 1, 1918.

<sup>10</sup> Time and one-half on Saturday afternoon.

<sup>11</sup> 44 hours per week, June to September, inclusive.

<sup>12</sup> Scale became 74.5 cents on June 1, 1918.

<sup>13</sup> Scale became 65.5 cents on July 1, 1918.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holi- day.	Rate of wages—		Hours. Full days; Saturdays; full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.	
<b>ELEVATOR CONSTRUCTORS— concluded.</b>	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>	
Rochester, N. Y.	65.6	28.88	2	1 2	8-4-44	12	59.4	26.13	8-4-44
Springfield, Mass.	65.6	28.88	2	2	8-4-44	12	55.0	24.20	8-4-44
Worcester, Mass.	62.5	27.50	2	2	8-4-44	12	( <sup>3</sup> )	( <sup>4</sup> )	( <sup>5</sup> )
<b>ELEVATOR CONSTRUCTORS' HELPERS.</b>									
Boston, Mass.	50.0	22.00	2	2	8-4-44	12	43.8	19.25	8-4-44
Buffalo, N. Y.	46.9	22.50	2	2	8-8-48	4	39.5	18.96	8-8-48
New York, N. Y.	44.0	19.36	2	2	8-4-44	12	44.0	19.36	8-4-44
Philadelphia, Pa.	50.0	22.00	2	2	8-4-44	12	46.0	20.24	8-4-44
Pittsburgh, Pa.	50.0	22.00	2	2	8-4-44	12	46.0	20.24	8-4-44
Providence, R. I.	43.8	19.25	2	2	8-4-44	12	39.0	17.16	8-4-44
Rochester, N. Y.	43.8	19.25	2	1 2	8-4-44	12	39.5	17.38	8-4-44
Springfield, Mass.	44.5	19.58	2	2	8-4-44	12	37.5	16.50	8-4-44
Worcester, Mass.	43.8	19.25	2	2	8-4-44	12	( <sup>6</sup> )	( <sup>7</sup> )	( <sup>8</sup> )
<b>ENGINEERS: PORTABLE AND HOISTING.</b>									
Boston, Mass.	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44
Bridgeport, Conn.	75.0	33.00	1 1/2	2	8-4-44	12	62.5	27.50	8-4-44
Buffalo, N. Y.	62.5	30.00	1 1/2	2	8-8-48		56.3	27.00	8-8-48
Newark, N. J.:									
Building work.	81.3	35.75	2	2	8-4-44	12	68.8	30.25	8-4-44
Foundation work.	68.8	33.00	2	2	8-8-48		62.5	30.00	8-8-48
Hoisting iron.	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44
New Haven, Conn.	75.0	33.00	1 1/2	2	8-4-44	12	54.5	24.00	8-4-44
New York, N. Y.:									
Building work, stone and steel.	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44
Combination and com- pressor engine.	90.9	40.00	2	2	8-4-44	12	84.7	37.25	8-4-44
Excavating.	75.0	36.00	2	2	8-8-48		62.5	30.00	8-8-48
Foundation work.	81.8	36.00	2	2	8-4-44	12	68.8	33.00	8-8-48
Hod elevators.	81.3	35.75	2	2	8-4-44	12	75.0	33.00	8-4-44
Philadelphia, Pa.:									
Boom derrick.	90.0	39.60	2	2	8-4-44	12	62.5	27.50	8-4-44
Hoist.	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44
Pittsburgh, Pa.	70.0	30.80	1 1/2	2	8-4-44	12	70.0	30.80	8-4-44
Portland, Me.	70.0	33.60	1 1/2	2	8-8-48	3	45.8	22.00	8-8-48
Providence, R. I.	62.5	27.50	1 1/2	2	8-4-44	12	62.5	27.50	8-4-44
Rochester, N. Y.	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44
Steam shovels, air com- pressors, etc.	79.5	35.00	2	2	8-4-44	12	75.0	33.00	8-4-44
Scranton, Pa.	62.5	30.00	1 1/2	2	8-8-48		56.3	27.00	8-8-48
Springfield, Mass.	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44
Worcester, Mass.	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44

<sup>1</sup> Time and one-half on Saturday afternoon.<sup>2</sup> Scale became 65.6 cents on July 1, 1918.<sup>3</sup> Not organized on May 15, 1917.<sup>4</sup> 44 hours per week, June to September, inclusive.<sup>5</sup> Scale became 49.8 cents on June 1, 1918.<sup>6</sup> Scale became 44.5 cents on July 1, 1918.<sup>7</sup> For broken time \$1 per hour.<sup>8</sup> For broken time 90 cents per hour.<sup>9</sup> And on Saturday afternoon.<sup>10</sup> For broken time 75 cents per hour.<sup>11</sup> Scale became 68.8 cents on June 1, 1918.<sup>12</sup> Scale became 75 cents on July 1, 1918.<sup>13</sup> For broken time 81.3 cents per hour.<sup>14</sup> For broken time 93.8 cents per hour.<sup>15</sup> For broken time 70 cents per hour.<sup>16</sup> Scale became 80 cents on June 1, 1918.<sup>17</sup> 44 hours per week, June to August, inclusive.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holl- days.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
HOD CARRIERS.										
	Cts.	Dolls.					Cts.	Dolls.		
Boston, Mass.....	42.5	18.70	1½	2	8-4-44	12	40.0	17.60	8-4-44	
Newark, N. J.....	45.0	19.80	2	2	8-4-44	12	45.0	19.80	8-4-44	
New York, N. Y.....	47.0	20.68	1½	2	8-4-44	12	42.5	18.70	8-4-44	
Philadelphia, Pa.....	60.0	26.40	1½	2	8-4-44	12	45.0	19.80	8-4-44	
Pittsburgh, Pa.:										
Mortar men.....	355.0	24.20	1½	2	8-4-44	12	45.0	19.80	8-4-44	
Wheelbarrow men.....	45.0	19.80	1½	2	8-4-44	12	30.0	13.20	8-4-44	
Portland, Me.....	50.0	22.00	1½	2	8-4-44	12	40.0	17.60	8-4-44	
Providence, R. I.....	38.0	19.00	1½	2	9-5-50	12	35.0	17.50	9-5-50	
Rochester, N. Y.....	40.0	17.60	1½	2	8-4-44	12	30.0	13.20	8-4-44	
Scranton, Pa.....	35.0	15.40	1½	2	8-4-44	5	35.0	15.40	8-4-44	
Springfield, Mass.....	50.0	22.00	2	2	8-4-44	12	45.0	19.80	8-4-44	
Worcester, Mass.....	50.0	22.00	1½	2	8-4-44	12	45.0	19.80	8-4-44	
INSIDE WIREMEN.										
Boston, Mass.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
Bridgeport, Conn.....	60.0	26.40	1	2	8-4-44	12	54.5	24.00	8-4-44	
Buffalo, N. Y.....	70.0	30.80	10 1½	2	8-4-44	12	62.5	30.00	11 8-8-48	
Fall River, Mass.....	60.0	26.40	2	2	8-4-44	12	50.0	22.00	8-4-44	
Manchester, N. H.....	60.0	26.40	1½	2	8-4-44	12	42.5	18.70	8-4-44	
Newark, N. J.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
New Haven, Conn.....	60.0	26.40	2	2	8-4-44	12	50.0	22.00	8-4-44	
New York, N. Y.....	65.0	28.60	2	2	8-4-44	12	65.0	28.60	8-4-44	
Philadelphia, Pa.....	65.0	28.60	2	2	8-4-44	12	56.3	24.75	8-4-44	
Pittsburgh, Pa.....	68.8	30.25	15 1½	2	8-4-44	12	62.5	27.50	8-4-44	
Portland, Me.....	65.0	31.20	1½	2	8-8-48	4	50.0	24.00	8-8-48	
Providence, R. I.....	60.0	26.40	2	2	8-4-44	12	55.0	24.20	8-4-44	
Rochester, N. Y.....	75.0	33.00	17 1½	2	8-4-44	12	56.3	24.75	8-4-44	
Scranton, Pa.....	62.5	27.50	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Springfield, Mass.....	57.0	25.08	18 1½	2	8-4-44	12	57.0	25.08	8-4-44	
Worcester, Mass.....	55.0	24.20	19 1½	2	8-4-44	12	50.0	22.00	8-4-44	

<sup>1</sup> Scale became 50 cents on July 1, 1918.

<sup>2</sup> Scale became 60 cents on June 1, 1918.

<sup>3</sup> Scale became 45 cents on June 1, 1918.

<sup>4</sup> And on Saturday afternoon; double time after midnight, and on Saturday after 5 p. m.

<sup>5</sup> Scale became 50 cents on May 23, 1918.

<sup>6</sup> 48 hours per week, October to April, inclusive.

<sup>7</sup> And on Saturday afternoon.

<sup>8</sup> Scale became 62.5 cents on June 1, 1918.

<sup>9</sup> Double time after 6 p. m.

<sup>10</sup> Double time after 6.30 p. m. and on Saturday afternoon.

<sup>11</sup> 44 hours per week, June to August, inclusive.

<sup>12</sup> Scale became 75 cents on July 1, 1918.

<sup>13</sup> Scale became 75 cents on June 15, 1918.

<sup>14</sup> Scale became 75 cents on June 1, 1918.

<sup>15</sup> Double time after midnight and on Saturday afternoon.

<sup>16</sup> 44 hours per week, June to September, inclusive.

<sup>17</sup> Double time after midnight.

<sup>18</sup> Double time after 9 p. m.

<sup>19</sup> Double time after 7 p. m.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- tiplied by—	For Sun- days and holl- idays, regu- lar rate mul- tiplied by—			Per hour.	Per week, full time.	
<b>INSIDE WIREMEN: FIXTURE HANGERS.</b>									
	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>	
Boston, Mass.....	65.0	28.60	2	2	8-4-44	12	60.0	26.40	8-4-44
Buffalo, N. Y.....	50.0	24.00	1½	2	8-8-48	3	45.0	21.60	8-8-48
New York, N. Y.....	65.0	28.60	2	2	8-4-44	12	65.0	28.60	8-4-44
Philadelphia, Pa.....	65.0	28.60	2	2	8-4-44	12	56.3	24.75	8-4-44
Pittsburgh, Pa.....	75.0	33.00	1½	2	8-4-44	12	57.5	25.30	8-4-44
Rochester, N. Y.....	75.0	33.00	1½	2	8-4-44	12	56.3	24.75	8-4-44
Springfield, Mass.....	57.0	25.08	1½	2	8-4-44	12	57.0	25.08	8-4-44
<b>LATHERS.</b>									
Boston, Mass.:									
Metal or wood.....	75.0	30.00	2	2	8-0-40	12	72.5	29.00	8-0-40
Wood.....	(10)		2	2	8-0-40	12	(11)		8-0-40
Bridgeport, Conn.:									
Metal or wood.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44
Wood.....	(12)		2	2	8-4-44	12	(12)		8-4-44
Buffalo, N. Y.:									
Metal or wood.....	62.5	30.00	1½	2	8-8-48	3	56.3	27.00	8-8-48
Wood.....	(12)		1½	2	8-8-48	3	(14)		8-8-48
Fall River, Mass.:									
Metal.....	60.0	26.40	1½	2	8-4-44	12	45.0	19.80	8-4-44
Wood.....	(18)		1	1	8-4-44	12	(16)		9-4-49
Newark, N. J.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44
New Haven, Conn.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44
New York, N. Y.:									
Metal.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44
Metal or wood.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44
Wood—									
Brooklyn.....	(18)		2	2	8-4-44	12	(18)		8-4-44
Manhattan and Bronx.....	(19)		2	2	8-4-44	12	(19)		8-4-44
Philadelphia, Pa.:									
Metal.....	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44
Wood.....	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44

<sup>1</sup> Scale became 75 cents on Aug. 1, 1918.

<sup>2</sup> Double time after 10 p. m.

<sup>3</sup> 44 hours per week, June to August, inclusive.

<sup>4</sup> Scale became 75 cents on June 1, 1918.

<sup>5</sup> Double time after midnight and on Saturday afternoon.

<sup>6</sup> Double time after midnight.

<sup>7</sup> Scale became 65 cents on June 1, 1918.

<sup>8</sup> Double time after 9 p. m. and on Saturday afternoon.

<sup>9</sup> Do not work on Saturday.

<sup>10</sup> \$3.75 per 1,000 laths, for 4-nail work; \$4 per 1,000 laths, for 5-nail work.

<sup>11</sup> \$3.60 per 1,000 laths, for 4-nail work; \$3.85 per 1,000 laths, for 5-nail work.

<sup>12</sup> \$3.75 per 1,000 laths.

<sup>13</sup> \$3.50 per 1,000 laths.

<sup>14</sup> \$2.75 per 1,000 laths.

<sup>15</sup> \$3 per 1,000 laths.

<sup>16</sup> \$2.25 per 1,000 laths.

<sup>17</sup> Scale became 75 cents on July 1, 1918.

<sup>18</sup> \$4 per 1,000 laths.

<sup>19</sup> \$4.50 per 1,000 laths.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holidays, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.	
LATHERS—concluded.									
Pittsburgh, Pa.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>	
Metal or wood.....	68.8	30.25	1½	2	8-4-44	12	68.8	30.25	8-4-44
Wood.....	(3)		1½	2	8-4-44	12	(3)		8-4-44
Providence, R. I.:									
Metal or wood.....	70.0	30.80	2	2	8-4-44	12	60.0	26.40	8-4-44
Metal.....	(4)		2	2	8-4-44	12	(5)		8-4-44
Wood.....	(6)		2	2	8-4-44	12	(7)		8-4-44
Rochester, N. Y.:									
Metal or wood.....	60.0	26.40	1½	2	8-4-44	12	55.0	24.20	8-4-44
Metal or wood.....	(9)		1	(10)	8-4-44	12	(11)		8-4-44
Scranton, Pa.:									
Metal.....	60.0	26.40	1½	2	8-4-44	12	60.0	26.40	8-4-44
Wood.....	(12)		1	1	8-4-44	12	(13)		8-4-44
Springfield, Mass.:									
Metal.....	62.5	27.50	2	2	8-4-44	12	60.0	26.40	8-4-44
Wood.....	(14)		2	2	8-4-44	12	(15)		8-4-44
Worcester, Mass.:									
Metal.....	62.5	27.50	2	2	8-4-44	12	62.5	27.50	8-4-44
Wood.....	(14)		2	2	8-4-44	12	(14)		8-4-44
MARBLE SETTERS.									
Boston, Mass.....	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44
Bridgeport, Conn.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44
Buffalo, N. Y.....	75.0	36.00	1½	2	17 8-8-48	3	68.8	33.00	17 8-8-48
Newark, N. J.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44
New Haven, Conn.....	70.0	30.80	2	2	8-4-44	12	68.8	30.25	8-4-44
New York, N. Y.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44
Philadelphia, Pa.....	75.0	33.00	1½	18 2	8-4-44	12	68.8	30.25	8-4-44
Pittsburgh, Pa.....	75.0	33.00	1½	18 2	8-4-44	12	68.8	30.25	8-4-44
Rochester, N. Y.....	71.9	31.63	19 1½	2	8-4-44	12	68.8	30.25	8-4-44
Scranton, Pa.....	68.8	33.00	1½	2	8-8-48	-----	68.8	33.00	8-8-48
Springfield, Mass.....	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44
MARBLE SETTERS' HELPERS.									
Boston, Mass.....	42.5	18.70	1½	2	8-4-44	12	35.0	15.40	8-4-44
New York, N. Y.....	43.8	19.25	2	2	8-4-44	12	43.8	19.25	8-4-44

1 Scale became 81.3 cents on June 1, 1918.

2 And on Saturday after 4.30 p. m.

3 \$3.60 per 1,000 laths; scale became \$4.50 per 1,000 laths on June 1, 1918.

4 5.5 cents per square yard.

5 4.5 cents per square yard.

6 \$2.50 per 1,000 laths; scale became \$3.25 per 1,000 laths on June 15, 1918.

7 \$2.25 per 1,000 laths.

8 Scale became 75 cents on June 1, 1918.

9 \$3 per 1,000 laths; scale became \$3.50 per 1,000 laths on June 1, 1918.

10 Do not work on Sunday or on holidays.

11 \$2.50 per 1,000 laths.

12 \$3 per 1,000 laths.

13 \$2.75 per 1,000 laths.

14 \$3 per 1,000 laths, for 4-nail work; \$3.25 per 1,000 laths, for 5-nail work.

15 \$2.50 per 1,000 laths, for 4-nail work; \$2.75 per 1,000 laths, for 5-nail work.

16 Scale became 75 cents on Sept. 1, 1918.

17 44 hours per week, June to August, inclusive.

18 And on Saturday afternoon.

19 Double time after midnight.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holl- days.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holl- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
<b>MOSAIC AND TERRAZZO WORKERS.</b>										
New York, N. Y.	Cts. 62.5	Dolls. 27.50	2	2	8-4-44	12	Cts. 59.4	Dolls. 26.13	8-4-44	
Philadelphia, Pa.:										
First class	55.0	24.20	1½	12	8-4-44	12	46.0	20.24	8-4-44	
Second class	50.0	22.00	1½	12	8-4-44	12	40.0	17.60	8-4-44	
Third class	40.0	17.60	1½	12	8-4-44	12	34.0	14.96	8-4-44	
<b>PAINTERS.</b>										
Boston, Mass.	75.0	30.00	2	2	8-0-40	12	62.5	25.00	8-0-40	
Bridgeport, Conn.	62.5	27.50	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Buffalo, N. Y.	56.3	24.75	1½	2	8-4-44	9	50.0	24.00	8-8-48	
Fall River, Mass.	55.0	24.20	1½	2	8-4-44	12	41.0	18.04	8-4-44	
Manchester, N. H.	50.0	22.00	1½	2	8-4-44	12	37.5	18.00	8-8-48	
Newark, N. J.	62.5	27.50	2	2	8-4-44	12	50.0	22.00	8-4-44	
New Haven, Conn.	53.1	23.38	2	2	8-4-44	12	45.5	20.02	8-4-44	
New York, N. Y.:										
Brooklyn	62.5	27.50	2	(8)	8-4-44	12	62.5	27.50	8-4-44	
Manhattan, Bronx, and										
Richmond	62.5	27.50	2	(8)	8-4-44	12	62.5	27.50	8-4-44	
Queens	62.5	27.50	2	2	8-4-44	12	62.5	27.50	8-4-44	
All boroughs	56.3	24.75	2	2	8-4-44	12	50.0	22.00	8-4-44	
Philadelphia, Pa.	60.0	26.40	1½	12	8-4-44	12	45.0	19.80	8-4-44	
Pittsburgh, Pa.	67.5	29.70	1½	2	8-4-44	12	65.0	28.60	8-4-44	
Portland, Me.	55.0	24.20	1½	2	8-4-44	12	40.0	17.60	8-4-44	
Providence, R. I.	62.5	27.50	1½	12	8-4-44	12	50.0	22.00	8-4-44	
Rochester, N. Y.	62.5	27.50	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Scranton, Pa.	50.0	22.00	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Springfield, Mass.	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Worcester, Mass.	62.5	27.50	1½	2	8-4-44	12	50.0	22.00	8-4-44	
<b>PAINTERS: FRESCO.</b>										
Boston, Mass.	80.0	32.00	2	2	8-0-40	12	67.5	27.00	8-0-40	
Fall River, Mass.	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
New York, N. Y.	62.5	27.50	2	2	8-4-44	12	56.3	24.75	8-4-44	
Brooklyn	87.5	38.50	2	(12)	8-4-44	12	87.5	38.50	8-4-44	
Manhattan, Bronx and										
Richmond	62.5	27.50	2	(8)	8-4-44	12	62.5	27.50	8-4-44	
Queens	62.5	27.50	2	2	8-4-44	12	62.5	27.50	8-4-44	
Philadelphia, Pa.	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Springfield, Mass.	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Worcester, Mass.	62.5	27.50	1½	2	8-4-44	12	50.0	22.00	8-4-44	

<sup>1</sup> And on Saturday afternoon.<sup>2</sup> Do not work on Saturday.<sup>3</sup> Work on Saturday afternoon prohibited.<sup>4</sup> 48 hours per week, April to June, inclusive.<sup>5</sup> 44 hours per week, June to August, inclusive.<sup>6</sup> Double time after 10 p. m.<sup>7</sup> Scale became 70 cents on June 1, 1918.<sup>8</sup> \$1.43 per hour.<sup>9</sup> Scale became 68.8 cents on June 1, 1918.<sup>10</sup> Double time after midnight.<sup>11</sup> Scale became 55 cents on June 10, 1918.<sup>12</sup> Double time after 9 p. m. and on Saturday after-  
noon.<sup>13</sup> \$2.00 per hour.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
PAINTERS: SIGN.										
	Cts.	Dolls.					Cts.	Dolls.		
Boston, Mass.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
Bridgeport, Conn.....	62.5	30.00	1 1/2	1 1/2	8-8-48	.....	62.5	30.00	8-8-48	
Buffalo, N. Y.....	75.0	33.00	1 1/2	2	8-4-44	12	75.0	33.00	8-4-44	
New York, N. Y.....	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44	
Philadelphia, Pa.....	68.8	30.25	1 1/2	2	8-4-44	12	56.3	24.75	8-4-44	
Pittsburgh, Pa.....	72.5	31.90	1 1/2	2	8-4-44	12	70.6	31.08	8-4-44	
Rochester, N. Y.....	62.5	27.50	1 1/2	2	8-4-44	12	50.0	24.00	8-8-48	1
Springfield, Mass.....	60.0	26.40	1 1/2	2	8-4-44	12	50.0	22.00	8-4-44	
Worcester, Mass.....	62.5	27.50	1 1/2	2	8-4-44	12	50.0	22.00	8-4-44	
PLASTERERS.										
Boston, Mass.....	70.0	28.00	2	2	8-0-40	12	70.0	28.00	8-0-40	
Bridgeport, Mass.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
Buffalo, N. Y.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
Fall River, Mass.....	75.0	33.00	1 1/2	1 1/2	8-4-44	12	65.0	28.60	8-4-44	
Manchester, N. H.....	75.0	33.00	1 1/2	2	8-4-44	12	60.0	26.40	8-4-44	
Newark, N. J.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44	
New Haven, Conn.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
New York, N. Y.: Brooklyn.....	75.0	33.66	2	2	8-4-44	12	75.0	33.00	8-4-44	
Manhattan, Bronx, and Richmond.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44	
Queens.....	87.5	35.00	2	2	8-0-40	12	75.0	33.00	8-4-44	
Philadelphia, Pa.....	75.0	30.00	1 1/2	10 2	8-0-40	12	70.0	28.00	8-0-40	
Pittsburgh, Pa.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44	
Portland, Me.....	80.0	35.20	2	2	8-4-44	12	62.5	27.50	8-4-44	
Providence, R. I.....	68.8	27.50	2	2	8-0-40	12	68.8	27.50	8-0-40	
Rochester, N. Y.....	70.0	30.80	1 1/2	2	8-4-44	12	70.0	30.80	8-4-44	
Scranton, Pa.....	70.0	30.80	1 1/2	2	8-4-44	12	65.0	28.60	8-4-44	
Springfield, Mass.....	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44	
Worcester, Mass.....	75.0	33.00	1 1/2	2	8-4-44	12	65.0	28.60	8-4-44	
PLASTERERS' LABORERS.										
Boston, Mass.....	50.0	20.00	2	14 2	8-0-40	12	45.0	18.00	8-0-40	
Newark, N. J.....	45.0	19.80	2	2	8-4-44	12	45.0	19.80	8-4-44	
New York, N. Y.: Brooklyn.....	56.3	24.75	2	2	8-4-44	12	46.9	20.63	8-4-44	
Queens.....	50.0	22.00	2	2	8-4-44	12	46.9	20.63	8-4-44	
All boroughs.....	56.3	24.75	2	2	8-4-44	12	46.9	20.63	8-4-44	
Philadelphia, Pa.....	50.0	20.00	1 1/2	2	8-0-40	12	46.9	18.75	8-0-40	
Pittsburgh, Pa.....	55.0	24.20	1 1/2	2	8-4-44	12	45.0	19.80	8-4-44	

1 Double time after midnight.

2 Work on Saturday afternoon prohibited.

3 44 hours per week, June to August, inclusive.

4 Double time after 9 p. m. and on Saturday after-  
noon.

5 Scale became 80 cents on June 1, 1918.

6 Do not work on Saturday.

7 Scale became 75 cents on Sept. 1, 1918.

8 On Sunday; on holidays, double time.

9 Scale became 80 cents on July 1, 1918.

10 Work on holidays prohibited.

11 Scale became 85 cents on July 1, 1918.

12 Double time after 7 p. m. and on Saturday after-  
noon.

13 Scale became 60 cents on June 1, 1918.

14 Time and one-half for work done on Saturday.

15 Scale became 50 cents on July 1, 1918.

16 Scale became 56.3 cents on May 17, 1918.

17 Double time after 11 p. m.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- tiplied by—	For Sun- days and holi- days, regu- lar rate mul- tiplied by—			Per hour.	Per week, full time.		
PLASTERERS' LABORERS— concluded.										
	Cts.	Dolls.					Cts.	Dolls.		
Portland, Me.....	55.0	24.20	1½	2	8-4-44	12	45.0	19.80	8-4-44	
Providence, R. I.....	50.0	22.00	2	2	8-4-44	12	45.0	19.80	8-4-44	
Rochester, N. Y.....	40.0	17.60	1½	2	8-4-44	12	30.0	13.20	8-4-44	
Scranton, Pa.....	35.0	15.40	1½	2	8-4-44	12	35.0	15.40	8-4-44	
Worcester, Mass.....	55.0	24.20	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Do.....	55.0	24.20	1½	2	8-4-44	12	45.0	19.80	8-4-44	
PLUMBERS AND GAS FITTERS.										
Boston, Mass.:										
Plumbers.....	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	
Gas fitters.....	70.0	30.80	2	2	8-4-44	12	65.0	28.60	8-4-44	
Bridgeport, Conn.....	62.5	27.50	1	2	8-4-44	12	54.5	24.00	8-4-44	
Buffalo, N. Y.....	68.8	30.25	1½	2	8-4-44	12	62.5	30.00	8-8-48	
Fall River, Mass.....	56.3	24.77	2	2	8-4-44	12	50.0	22.00	8-4-44	
Manchester, N. H.....	50.0	22.00	1½	1½	8-4-44	12	47.7	21.00	8-4-44	
Newark, N. J.....	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44	
New Haven, Conn.....	62.5	27.50	1	2	8-4-44	12	54.5	24.00	8-4-44	
New York, N. Y.:										
Manhattan, Bronx, and										
Brooklyn.....	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	
Queens.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
Richmond.....	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	
Philadelphia, Pa.....	62.5	27.50	2	2	8-4-44	12	56.3	24.75	8-4-44	
Pittsburgh, Pa.....	75.0	33.00	1½	2	8-4-44	12	75.0	33.00	8-4-44	
Portland, Me.....	62.5	27.50	2	2	8-4-44	12	50.0	24.00	8-8-48	
Providence, R. I.....	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44	
Rochester, N. Y.....	59.4	26.13	1½	2	8-4-44	12	59.4	26.13	8-4-44	
Scranton, Pa.....	62.5	27.50	2	2	8-4-44	12	53.1	23.38	8-4-44	
Springfield, Mass.....	61.4	27.00	2	2	8-4-44	12	59.1	26.00	8-4-44	
Worcester, Mass.:										
Plumbers.....	60.0	26.40	2	2	8-4-44	12	60.0	26.40	8-4-44	
Gas fitters.....	50.0	22.00	2	2	8-4-44	12	40.9	18.00	8-4-44	
PLUMBERS' LABORERS.										
New York, N. Y.....	62.5	30.00	2	2	8-8-48	.....	50.0	24.00	8-8-48	
Pittsburgh, Pa.....	50.0	22.00	1½	2	8-4-44	12	43.8	19.25	8-4-44	

1 And on Saturday afternoon; double time after midnight and on Saturday after 5 p. m.

2 Scale became 50 cents on May 23, 1918.

3 And on Saturday afternoon.

4 Scale became 75 cents on July 1, 1918.

5 Double time after 6 p. m.

6 44 hours per week, June to August, inclusive.

7 Scale became 67.5 cents on June 1, 1918.

8 Scale became 70 cents on July 1, 1918.

9 Scale became 75 cents on Aug. 1, 1918.

10 And on Saturday afternoon; double time after midnight and on Saturday after 8 p. m.

11 Scale became 68.2 cents on June 1, 1918.

12 Scale became 65.6 cents on June 1, 1918.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holi- days.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
SHEET-METAL WORKERS. <sup>1</sup>										
Boston, Mass.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Building work.....	70.0	30.80	2	2	8-4-44	12	60.0	26.40	8-4-44	
Railroad shops.....	68.0	32.64	<sup>2</sup> 1	1½	8-8-48	.....	34.0	18.36	<sup>9</sup> 8-53	
Bridgeport, Conn.....	62.5	27.50	<sup>4</sup> 1	2	8-4-44	12	54.5	24.00	8-4-44	
Buffalo, N. Y.....	<sup>5</sup> 56.3	27.00	<sup>6</sup> 1½	2	<sup>7</sup> 8-8-48	3	50.0	24.00	<sup>7</sup> 8-48	
Fall River, Mass.....	50.0	22.00	2	2	8-4-44	12	43.8	19.25	8-4-44	
Manchester, N. H.....	37.5	16.50	1½	1½	8-4-44	12	34.4	16.50	8-8-48	
Newark, N. J.....	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44	
New Haven, Conn.:										
Building work.....	59.1	26.00	2	2	8-4-44	12	54.5	24.00	8-4-44	
Railroad shops.....	68.0	32.64	<sup>2</sup> 1	1½	8-8-48	12	31.5	17.01	<sup>9</sup> 8-53	
New York, N. Y.:										
Richmond.....	70.0	30.80	2	2	8-4-44	12	62.5	27.50	8-4-44	
All boroughs.....	70.0	30.80	2	2	8-4-44	12	62.5	27.50	8-4-44	
Philadelphia, Pa.....	70.0	30.80	2	2	8-4-44	12	56.3	24.75	8-4-44	
Shipyards.....	70.0	30.80	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Pittsburgh, Pa.....	<sup>2</sup> 70.0	30.80	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Portland, Me.:										
First class.....	50.0	24.00	<sup>9</sup> 1½	2	8-8-48	.....	( <sup>10</sup> )	( <sup>10</sup> )	( <sup>10</sup> )	
Second class.....	43.8	21.00	<sup>9</sup> 1½	2	8-8-48	.....	( <sup>10</sup> )	( <sup>10</sup> )	( <sup>10</sup> )	
Providence, R. I.....	57.0	25.08	<sup>11</sup> 1½	2	8-4-44	12	52.0	22.88	8-4-44	
Rochester, N. Y.....	56.3	24.75	<sup>12</sup> 1½	2	8-4-44	12	50.0	22.00	8-4-44	
Scranton, Pa.....	<sup>13</sup> 56.3	24.75	2	2	8-4-44	12	50.0	22.00	8-4-44	
Springfield, Mass.....	54.5	24.00	2	2	8-4-44	12	54.5	24.00	8-4-44	
Worcester, Mass.....	52.3	22.99	<sup>14</sup> 1½	<sup>14</sup> 2	8-4-44	12	50.0	22.00	8-4-44	
SHIP CARPENTERS.										
Boston, Mass.....	70.0	30.80	2	2	8-4-44	12	56.3	27.00	8-8-48	
New York, N. Y.....	70.0	33.60	2	2	<sup>15</sup> 8-8-48	3	53.1	25.50	<sup>16</sup> 8-48	
Do.....	70.0	33.60	2	2	<sup>15</sup> 8-8-48	3	61.0	29.28	<sup>16</sup> 8-48	
Do.....	65.0	31.20	2	2	<sup>15</sup> 8-8-48	3	56.3	27.00	<sup>16</sup> 8-48	
Philadelphia, Pa.....	<sup>18</sup> 60.0	28.80	<sup>18</sup> 1½	2	8½-4½-48	12	49.0	23.52	8-8-48	
Portland, Me.:										
First class.....	70.0	33.60	1½	2	8-8-48	.....	( <sup>19</sup> )	( <sup>19</sup> )	( <sup>19</sup> )	
Second class.....	65.0	31.20	1½	2	8-8-48	.....	( <sup>19</sup> )	( <sup>19</sup> )	( <sup>19</sup> )	

<sup>1</sup> For explanation of changes in rates in railroad shops see p. 134.<sup>2</sup> Time and one-half after 1 hour; on Saturday for all overtime.<sup>3</sup> Work 53 hours, paid for 54.<sup>4</sup> Double time after 6 p. m.<sup>5</sup> Scale became 62.5 cents and 44 hours on June 1, 1918.<sup>6</sup> Double time after midnight.<sup>7</sup> 44 hours per week, June to August, inclusive.<sup>8</sup> Scale became 80 cents on June 1, 1918.<sup>9</sup> Double time after 4 hours of overtime.<sup>10</sup> Not organized on May 15, 1917.<sup>11</sup> Double time after 9 p. m.<sup>12</sup> Until midnight and on Saturday afternoon; double time after midnight and on Saturday after 8 p. m.<sup>13</sup> Scale became 62.5 cents on June 1, 1918.<sup>14</sup> Single time on Saturday afternoon.<sup>15</sup> Scale became 70 cents on June 1, 1918.<sup>16</sup> Double time after 10 p. m.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
SLATE AND TILE ROOFERS.										
	Cts.	Dolls.					Cts.	Dolls.		
Bridgeport, Conn.	162.5	27.50	1½	2	8-4-44	12	56.3	24.75	8-4-44	
Buffalo, N. Y.	60.0	28.80	1½	2	8-8-48	12	55.0	26.40	8-8-48	
Newark, N. J.	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	
New Haven, Conn.	68.8	30.25	1½	2	8-4-44	12	62.5	27.50	8-4-44	
New York, N. Y.	78.1	34.38	2	2	8-4-44	12	68.5	30.25	8-4-44	
Philadelphia, Pa.	70.0	30.80	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Pittsburgh, Pa.	75.0	33.00	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Scranton, Pa.	53.1	25.50	1½	2	8-8-48	12	46.9	22.50	8-8-48	
Springfield, Mass.	62.5	27.50	1½	2	8-4-44	12	55.0	24.20	8-4-44	
STEAM FITTERS.										
Boston, Mass.	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
Bridgeport, Conn.	62.5	27.50	1	2	8-4-44	12	54.5	24.00	8-4-44	
Buffalo, N. Y.	68.8	30.25	1½	2	8-4-44	12	62.5	30.00	8-8-48	
Fall River, Mass.	60.0	26.40	2	2	8-4-44	12	50.0	22.00	8-4-44	
Manchester, N. H.	50.0	22.00	1½	1½	8-4-44	12	47.7	21.00	8-4-44	
Newark, N. J.	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	
New Haven, Conn.	62.5	27.50	1	2	8-4-44	12	54.5	24.00	8-4-44	
New York, N. Y.	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	
Philadelphia, Pa.	62.5	27.50	2	2	8-4-44	12	56.3	24.75	8-4-44	
Do.	68.8	30.25	2	2	8-4-44	12	56.3	24.75	8-4-44	
Pittsburgh, Pa.	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44	
Portland, Me.	62.5	27.50	2	2	8-4-44	12	50.0	24.00	8-8-48	
Providence, R. I.	65.0	28.60	2	2	8-4-44	12	55.0	24.20	8-4-44	
Do.	62.5	27.50	2	2	8-4-44	12	50.0	22.00	8-4-44	
Rochester, N. Y.	59.4	26.13	1½	2	8-4-44	12	59.4	26.13	8-4-44	
Scranton, Pa.	62.5	27.50	2	2	8-4-44	12	56.3	24.75	8-4-44	
Springfield, Mass.	56.8	25.00	2	2	8-4-44	12	54.5	24.00	8-4-44	
STEAM FITTERS' HELPERS.										
Boston, Mass.	42.5	18.70	2	2	8-4-44	12	34.4	15.13	8-4-44	
Bridgeport, Conn.	34.4	15.13	1	2	8-4-44	12	34.4	15.13	8-4-44	
Buffalo, N. Y.	34.4	15.13	1½	2	8-4-44	12	31.3	15.00	8-8-48	
Fall River, Mass.	45.0	19.80	2	2	8-4-44	12	37.5	16.50	8-4-44	
Newark, N. J.	42.5	18.70	2	2	8-4-44	12	37.5	16.50	8-4-44	
New York, N. Y.	42.5	18.70	2	2	8-4-44	12	40.0	17.60	8-4-44	
Philadelphia, Pa.	37.5	16.50	2	2	8-4-44	12	32.5	14.30	8-4-44	
Do.	37.5	16.50	2	2	8-4-44	12	32.5	14.30	8-4-44	
Pittsburgh, Pa.	43.8	19.25	2	2	8-4-44	12	43.8	19.25	8-4-44	
Providence, R. I.	37.5	16.50	2	2	8-4-44	12	31.3	13.75	8-4-44	
Scranton, Pa.	43.8	19.25	2	2	8-4-44	12	31.3	13.75	8-4-44	
Springfield, Mass.	34.1	15.00	2	2	8-4-44	12	31.8	14.00	8-4-44	
Worcester, Mass.	33.0	14.50	2	2	8-4-44	12	31.8	14.00	8-4-44	

1 Scale became 68.8 cents on Sept. 1, 1918.

2 Scale became 87.5 cents on July 1, 1918.

3 Scale became 80 cents on July 1, 1918.

4 And on Saturday afternoon.

5 Work on July 4, Labor Day, and Christmas pro-

6 Scale became 75 cents on June 1, 1918.

7 Double time after 6 p. m.

8 Double time after midnight.

9 Scale became 70 cents on July 1, 1918.

10 Scale became 80 cents on June 1, 1918.

11 Double time after midnight and on Saturday

after 8 p. m.

12 Scale became 63.6 cents on June 1, 1918.

13 Scale became 50 cents on June 1, 1918.

14 Scale became 34.1 cents on June 1, 1918.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
STONEMASONS.										
	Cts.	Dolls.					Cts.	Dolls.		
Boston, Mass.	80.0	35.20	2	2	8-4-44	12	70.0	30.80		8-4-44
Bridgeport, Conn.	70.0	30.80	2	2	8-4-44	12	65.0	28.60		8-4-44
Buffalo, N. Y.	75.0	36.00	1½	2	8-8-48	3	65.0	31.20	2	8-8-48
Fall River, Mass.	75.0	33.00	1½	1½	8-4-44	12	65.0	28.60		8-4-44
Newark, N. J.	75.0	33.00	2	2	8-4-44	12	75.0	33.00		8-4-44
New Haven, Conn.	70.0	30.80	2	2	8-4-44	12	60.0	26.40		8-4-44
New York, N. Y.	75.0	33.00	2	2	8-4-44	12	62.5	27.50		8-4-44
Do.	75.0	33.00	2	2	8-4-44	12	75.0	33.00		8-4-44
Do.	75.0	33.00	2	2	8-4-44	12	70.0	30.80		8-4-44
Do.	81.3	35.75	2	2	8-4-44	12	75.0	33.00		8-4-44
Philadelphia, Pa.	70.0	30.80	1½	2	8-4-44	12	60.0	26.40		8-4-44
Pittsburgh, Pa.	65.0	28.60	1½	2	8-4-44	12	65.0	28.60		8-4-44
Portland, Me.	70.0	30.80	7 1½	2	8-4-44	12	65.0	28.60		8-4-44
Providence, R. I.	70.0	30.80	1½	2	8-4-44	12	70.0	30.80		8-4-44
Do.	50.0	22.00	1½	2	8-4-44	12	50.0	22.00		8-4-44
Rochester, N. Y.	70.0	30.80	1½	2	8-4-44	12	70.0	30.80		8-4-44
Scranton, Pa.	75.0	36.00	1½	2	8-8-48	.....	60.0	28.80		8-8-48
Do.	70.0	33.60	1½	2	8-8-48	.....	65.0	31.20		8-8-48
Springfield, Mass.	75.0	33.00	2	2	8-4-44	12	70.0	30.80		8-4-44
Worcester, Mass.	65.0	28.60	1½	2	8-4-44	12	65.0	28.60		8-4-44
STRUCTURAL-IRON WORKERS.										
Boston, Mass.	80.0	35.20	2	2	8-4-44	12	68.8	30.25		8-4-44
Bridgeport, Conn.	80.0	35.20	1½	2	8-4-44	12	62.5	27.50		8-4-44
Buffalo, N. Y.	70.0	30.80	1½	2	8-4-44	12	62.5	30.00	11	8-8-48
Fall River, Mass.	62.5	27.50	1½	2	8-4-44	12	50.0	22.00		8-4-44
Newark, N. J.	75.0	33.00	2	2	8-4-44	12	72.5	31.90		8-4-44
New Haven, Conn.	80.0	35.30	2	2	8-4-44	12	62.5	27.50		8-4-44
New York, N. Y.:										
Brooklyn and Queens.	1280.0	35.20	2	2	8-4-44	12	66.3	29.15		8-4-44
Manhattan, Bronx, and Richmond.	1280.0	35.20	2	2	8-4-44	12	68.8	30.25		8-4-44
Philadelphia, Pa.	92.5	40.70	2	2	8-4-44	12	70.0	30.80		8-4-44
Pittsburgh, Pa.	87.5	38.50	7 1½	2	8-4-44	12	70.0	30.80		8-4-44
Portland, Me.	75.0	33.00	2	2	8-4-44	12	56.0	24.64		8-4-44
Providence, R. I.	80.0	35.20	2	2	8-4-44	12	68.8	30.25		8-4-44
Rochester, N. Y.	80.0	35.20	2	2	8-4-44	12	68.8	30.25		8-4-44
Scranton, Pa.	68.8	33.00	1½	1½	8-4-48	4	62.5	30.00	11	8-8-48
Springfield, Mass.	68.8	30.25	2	2	8-4-44	12	62.5	27.50		8-4-44
Worcester, Mass.	68.8	30.25	2	2	8-4-44	12	68.8	30.25		8-4-44

<sup>1</sup> Scale became 75 cents on Sept. 1, 1918.<sup>2</sup> 44 hours per week, June to August, inclusive.<sup>3</sup> On Sunday: on holidays, double time.<sup>4</sup> Scale became 80 cents on July 1, 1918.<sup>5</sup> And on Saturday afternoon.<sup>6</sup> Scale became 75 cents on June 1, 1918.<sup>7</sup> Double time after 6 p. m.<sup>8</sup> Double time after 7 p. m. and on Saturday afternoon.<sup>9</sup> And on Saturday after 5 p. m.<sup>10</sup> Scale became 85 cents on June 1, 1918.<sup>11</sup> 44 hours per week, June to September, inclusive.<sup>12</sup> Scale became 87.5 cents on June 1, 1918.<sup>13</sup> And on Saturday afternoon, June to September, inclusive.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Num- ber of mos. with Sat- ur- day half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
<b>STRUCTURAL-IRON WORKERS: FINISHERS.</b>										
	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Boston, Mass.....	80.0	35.20	2	2	8-4-44	12	68.8	30.25	8-4-44	
Bridgeport, Conn.....	80.0	35.20	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Buffalo, N. Y.....	70.0	30.80	1½	2	8-4-44	12	62.5	30.00	8-8-48	
Newark, N. J.....	75.0	33.00	2	2	8-4-44	12	72.5	31.90	8-4-44	
New Haven, Conn.....	80.0	35.20	2	2	8-4-44	12	62.5	27.50	8-4-44	
New York, N. Y.....	68.8	30.25	2	2	8-4-44	12	66.3	29.15	8-4-44	
Philadelphia, Pa.....	92.5	40.70	2	2	8-4-44	12	70.0	30.80	8-4-44	
Pittsburgh, Pa.....	87.5	38.50	1½	2	8-4-44	12	65.0	28.60	8-4-44	
Providence, R. I.....	80.0	35.20	2	2	8-4-44	12	68.8	30.25	8-4-44	
Rochester, N. Y.....	80.0	35.20	2	2	8-4-44	12	68.8	30.25	8-4-44	
Scranton, Pa.....	68.8	33.00	1½	2	8-8-48	4	62.5	30.00	8-8-48	
Springfield, Mass.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
Worcester, Mass.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44	
<b>STRUCTURAL-IRON WORKERS: FINISHERS' HELPERS.</b>										
Boston, Mass.....	55.0	24.20	2	2	8-4-44	12	50.0	22.00	8-4-44	
Bridgeport, Conn.....	55.0	24.20	1½	2	8-4-44	12	40.0	17.60	8-4-44	
Buffalo, N. Y.....	45.0	19.80	2	2	8-4-44	12	35.0	16.80	8-8-48	
Newark, N. J.....	50.0	22.00	2	2	8-4-44	12	50.0	22.00	8-4-44	
New Haven, Conn.....	55.0	24.20	2	2	8-4-44	12	40.0	17.60	8-4-44	
New York, N. Y.....	50.0	22.00	2	2	8-4-44	12	47.5	20.90	8-4-44	
Pittsburgh, Pa.....	60.0	26.40	1½	2	8-4-44	12	47.5	20.90	8-4-44	
Rochester, N. Y.....	45.0	19.80	2	2	8-4-44	12	37.5	16.50	8-4-44	
Springfield, Mass.....	55.0	24.20	2	2	8-4-44	12	40.0	17.60	8-4-44	
Worcester, Mass.....	50.0	22.00	2	2	8-4-44	12	50.0	22.00	8-4-44	
<b>TILE LAYERS.</b>										
Boston, Mass.....	75.0	30.00	2	2	8-0-40	10	75.0	30.00	8-0-40	
Bridgeport, Conn.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44	
Buffalo, N. Y.....	62.5	30.00	1½	2	8-8-48	3	60.0	28.80	8-8-48	
Newark, N. J.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44	
New York, N. Y.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44	
Philadelphia, Pa.....	70.0	30.80	1½	2	8-4-44	12	67.5	29.70	8-4-44	
Pittsburgh, Pa.....	71.9	34.50	1½	2	8-8-48	(14)	(14)	(14)	(14)	
Providence, R. I.....	67.5	29.70	1½	2	8-4-44	12	65.0	28.60	8-4-44	
Rochester, N. Y.....	68.8	30.25	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Scranton, Pa.....	62.5	27.50	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Springfield, Mass.....	60.0	26.40	1½	2	8-4-44	12	60.0	26.40	8-4-44	

<sup>1</sup> And on Saturday afternoon.<sup>2</sup> Scale became 85 cents on June 1, 1918.<sup>3</sup> 44 hours per week, June to September, inclusive.<sup>4</sup> Scale became 87.5 cents on June 1, 1918.<sup>5</sup> Double time after 6 p. m.<sup>6</sup> And on Saturday afternoon, June to September, inclusive.<sup>7</sup> Scale became 50 cents on June 1, 1918.<sup>8</sup> Scale became 68.8 cents on June 1, 1918.<sup>9</sup> Scale became 80 cents on July 1, 1918.<sup>10</sup> Do not work on Saturday.<sup>11</sup> Double time after midnight.<sup>12</sup> 44 hours per week, June to August, inclusive.<sup>13</sup> Work on Saturday afternoon prohibited.<sup>14</sup> No scale in effect on May 15, 1917.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## BUILDING TRADES—Concluded.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Num- ber of mos. with Sat- ur- day half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate multi- plied by—	For Sun- days and holidays, regu- lar rate multi- plied by—			Per hour.	Per week, full time.	
<b>TILE LAYERS' HELPERS.</b>	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>	
Boston, Mass.	43.8	17.50	2	2	8-0-40	12	41.3	16.50	8-0-40
Bridgeport, Conn.	41.3	18.15	2	2	8-4-44	12	41.3	18.15	8-4-44
Newark, N. J.	40.6	17.88	2	2	8-4-44	12	40.6	17.88	8-4-44
New York, N. Y.	40.6	17.88	2	2	8-4-44	12	40.6	17.88	8-4-44
Philadelphia, Pa.	42.0	18.48	1½	2	8-4-44	12	40.5	17.82	8-4-44
Pittsburgh, Pa.	43.8	19.25	1½	2	8-4-44	12	37.5	16.50	8-4-44
Providence, R. I.	37.5	16.50	1½	2	8-4-44	12	34.4	15.13	8-4-44
Scranton, Pa.	31.3	13.75	1½	2	8-4-44	12	30.0	13.20	8-4-44

## METAL TRADES.

<b>BLACKSMITHS.<sup>1</sup></b>									
Boston, Mass.:									
Railroad shops, road A.	68.0	32.64	71	1½	8-8-48	.....	32.0	17.28	9-8-53
Railroad shops, road B.	68.0	32.64	71	1½	8-8-48	2	34.5	18.29	9-8-53
Buffalo, N. Y.:									
Manufacturing and job- bing shops.	65.0	28.60	1½	2	8-4-44	12	55.0	29.70	9-9-54
New Haven, Conn.:									
Railroad shops.	68.0	32.64	71	1½	8-8-48	.....	32.0	17.28	9-8-53
New York, N. Y.:									
Manufacturing and job- bing shops—									
Manhattan, Bronx, and Queens.	72.5	34.80	2	2½	8-8-48	.....	53.1	25.50	8-8-48
Brooklyn.	72.5	34.80	2	2½	8-8-48	.....	56.3	27.00	8-8-48
Philadelphia, Pa.:									
Manufacturing and job- bing—									
Shops A.	72.5	39.15	1½	2	9-9-54	.....	44.4	24.00	9-9-54
Shops B.	72.5	31.90	1½	2	8-4-44	12	50.0	24.00	8-8-48
Railroad shops.	68.0	32.64	71	1½	8-8-48	.....	37.0	19.98	9-9-54
Shipyards.	82.5	36.30	2	2	8-4-44	12	(10)	(10)	(10)
Do.	72.5	31.90	1½	2	8-4-44	12	(10)	(10)	(10)
Pittsburgh, Pa.:									
Manufacturing shops.	50.0	25.00	1½	1½	9-5-50	12	32.5	16.25	9-5-50
Do.	57.5	27.60	1½	2	8-8-48	.....	46.9	22.50	8-8-48
Railroad shops.	68.0	32.64	11	1½	8-8-48	.....	45.0	24.30	9-9-54
Portland, Me.	68.0	36.04	1½	1½	9-8-53	.....	(12)	(12)	(12)
Springfield, Mass.:									
Manufacturing and job- bing shops.	50.0	25.00	2	2	9-5-50	.....	(10)	(10)	(10)
Railroad shops.	68.0	32.64	71	1½	8-8-48	.....	37.5	19.88	9-8-53

<sup>1</sup> Do not work on Saturday.<sup>2</sup> Scale became 46 cents on July 1, 1918.<sup>3</sup> And on Saturday afternoon.<sup>4</sup> Work on Saturday afternoon prohibited.<sup>5</sup> Double time after midnight.<sup>6</sup> For explanation of changes in rates in railroad shops see p. 134.<sup>7</sup> Time and one-half after 1 hour; on Saturday for all overtime.<sup>8</sup> Work 53 hours, paid for 54.<sup>9</sup> During July and August work 5 hours on Saturday, 50 hours per week; paid for 53.<sup>10</sup> No scale in effect on May 15, 1917.<sup>11</sup> Hours vary, but total 48 per week.<sup>12</sup> Time and one-half after 1 hour.<sup>13</sup> Not organized on May 15, 1917.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
BLACKSMITHS' HELPERS. <sup>1</sup>										
Boston, Mass.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Railroad shops, road A...	45.0	21.60	1	1½	8-8-48	.....	23.5	12.69	9-8-53	
Railroad shops, road B...	45.0	21.60	1	1½	8-8-48	2	26.5	14.05	9-8-53	
Buffalo, N. Y.:										
Manufacturing and job- bing shops.....	45.0	19.80	1½	2	8-4-44	12	35.0	18.90	9-9-54	
New Haven, Conn.:										
Railroad shops.....	45.0	21.60	1	1½	8-8-48	.....	23.5	12.69	9-8-53	
New York, N. Y.:										
Manufacturing and job- bing shops.....	46.0	22.08	2	2½	8-8-48	.....	36.9	17.70	8-8-48	
Philadelphia, Pa.:										
Manufacturing and job- bing—										
Shops A.....	50.0	27.00	1½	2	9-9-54	.....	30.0	16.20	9-9-54	
Shops B.....	50.0	22.00	1½	2	8-4-44	12	30.0	14.40	8-8-48	
Railroad shops.....	45.0	21.60	1	1½	8-8-48	.....	28.0	15.12	9-9-54	
Shipyards.....	56.5	24.86	2	2	8-4-44	12	(*)	(*)	(*)	
Do.....	46.0	20.24	1½	2	8-4-44	12	(*)	(*)	(*)	
Pittsburgh, Pa.:										
Manufacturing shops....	43.5	20.88	1½	2	8-8-48	.....	35.0	16.80	8-8-48	
Do.....	38.0	19.00	1½	1½	9-5-50	12	28.1	14.06	9-5-50	
Railroad shops.....	45.0	21.60	1	1½	8-8-48	.....	30.5	16.47	9-9-54	
Portland, Me.....	45.0	23.85	1½	1½	9-8-53	.....	(*)	(*)	(*)	
Springfield, Mass.:										
Manufacturing and job- bing shops.....	36.0	18.00	2	2	9-5-50	12	(*)	(*)	(*)	
Railroad shops.....	45.0	21.60	1	1½	8-8-48	.....	26.5	14.05	8-8-53	
BOILER MAKERS. <sup>1</sup>										
Boston, Mass.:										
Railroad shops, road A...	68.0	32.64	1	1½	8-8-48	.....	35.0	18.90	9-8-53	
Railroad shops, road A...	68.0	32.64	1	1½	8-8-48	.....	32.0	17.28	9-8-53	
Railroad shops, road B...	68.0	32.64	1	1½	8-8-48	2	34.5	18.29	9-8-53	
Buffalo, N. Y.:										
Manufacturing shops....	70.0	37.80	1½	1½	9-9-54	.....	46.0	24.84	9-9-54	
Manufacturing shops....	53.0	28.62	1½	1½	9-9-54	.....	51.6	27.84	9-9-54	
Outside.....	62.5	30.00	1½	2	8-8-48	.....	53.1	25.50	8-8-48	
Railroad shops, road A...	68.0	32.64	10	1½	8-8-48	.....	35.0	21.00	10-10-60	
Railroad shops, road B...	68.0	32.64	1	1½	8-8-48	.....	34.0	20.40	10-10-60	
Railroad shops, road C...	68.0	32.64	10	1	8-8-48	.....	34.0	20.40	10-10-60	
Railroad shops, road E...	68.0	32.64	1	1½	8-8-48	.....	37.0	19.98	9-9-54	
Railroad shops, road F...	68.0	32.64	10	1½	8-8-48	.....	33.0	19.80	10-10-60	
New Haven, Conn.:										
Railroad shops.....	68.0	32.64	1	1½	8-8-48	.....	32.0	17.28	9-8-53	

<sup>1</sup> For explanation of changes in rates in railroad shops, see p. 134.<sup>2</sup> Time and one-half after 1 hour; on Saturday for all overtime.<sup>3</sup> Work 53 hours, paid for 54.<sup>4</sup> During July and August work 5 hours on Saturday, 50 hours per week; paid for 53.<sup>5</sup> No scale in effect on May 15, 1917.<sup>6</sup> Hours vary, but total 48 per week.<sup>7</sup> Time and one-half after 1 hour.<sup>8</sup> Not organized on May 15, 1917.<sup>9</sup> On new work; repair work, double time.<sup>10</sup> Time and one-half after 2 hours.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holi- days.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
<b>BOILER MAKERS—concluded.</b>										
New York, N. Y.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Manufacturing shops.....	70.0	33.60	2	2	8-8-48	.....	49.4	23.70	8-8-48	
Outside.....	75.0	33.00	2	1 2	8-4-44	12	62.5	27.50	8-4-44	
Marine work.....	70.0	33.60	2 2 1/2	2	8-8-48	.....	49.4	23.70	8-8-48	
Philadelphia, Pa.:										
Manufacturing shops.....	70.0	30.80	2	1 2	8-4-44	12	50.0	24.00	8-8-48	
Outside.....	80.0	35.20	2	1 2	8-4-44	12	56.3	24.75	8-4-44	
Shipyards.....	80.0	35.20	2	2	8-4-44	12	(4)	(4)	(4)	
Shipyards.....	70.0	30.80	1 1/2	2	8-4-44	12	(4)	(4)	(4)	
Pittsburgh, Pa.:										
Manufacturing and job- bing shops.....	60.0	30.00	(6)	3	9-5-50	12	46.0	23.00	9-5-50	
Outside.....	75.0	33.00	2	(7)	8-4-44	12	62.5	27.50	8-4-44	
Railroad shops, road A..	68.0	32.64	1	1 1/2	8-8-48	.....	42.0	22.68	9-9-54	
Railroad shops, road B..	68.0	32.64	1	1 1/2	8-8-48	.....	45.0	24.30	9-9-54	
Portland, Me.:										
Railroad shops.....	68.0	32.64	1	1 1/2	8-8-48	.....	(10)	(10)	(10)	
Rochester, N. Y.:										
Manufacturing and job- bing shops.....	75.0	36.00	2	2	8-8-48	.....	65.0	31.20	8-8-48	
Railroad shops.....	68.0	32.64	1	1 1/2	8-8-48	.....	32.0	17.28	9-9-54	
Springfield, Mass.:										
Railroad shops.....	68.0	32.64	1	1 1/2	8-8-48	.....	34.5	18.29	9-8-53	
<b>BOILER MAKERS' HELPERS.<sup>12</sup></b>										
Boston, Mass.:										
Railroad shops, road A..	45.0	21.60	1	1 1/2	8-8-48	.....	26.0	13.78	12 9-8-53	
Railroad shops, road A..	45.0	21.60	1	1 1/2	8-8-48	.....	27.5	14.85	12 9-8-53	
Railroad shops, road B..	45.0	21.60	1	1 1/2	8-8-48	2	27.5	14.58	14 9-8-53	
Railroad shops, road B..	45.0	21.60	1	1 1/2	8-8-48	2	25.5	13.52	14 9-8-53	
Buffalo, N. Y.:										
Manufacturing shops.....	41.6	22.44	1 1/2	1 1/2	9-9-54	.....	36.6	19.74	9-9-54	
Manufacturing shops.....	36.0	19.44	1 1/2	1 1/2	9-9-54	.....	31.0	16.74	9-9-54	
Outside.....	41.0	19.68	1 1/2	2	8-8-48	.....	33.0	15.84	8-8-48	
New Haven, Conn.:										
Railroad shops.....	45.0	24.30	1 1/2	1 1/2	8-8-48	.....	26.0	14.04	12 9-8-53	
New York, N. Y.:										
Manufacturing shops.....	46.0	22.08	2	2	8-8-48	.....	34.4	16.50	8-8-48	
Outside.....	75.0	33.00	2	1 2	8-4-44	12	50.0	22.00	8-4-44	
Marine work.....	46.0	22.08	2 2 1/2	2	8-8-48	.....	34.4	16.50	8-8-48	

<sup>1</sup> For Labor Day and Christmas, regular rate multiplied by 4.<sup>2</sup> On repair work; on new work, double time.<sup>3</sup> For Labor Day, regular rate multiplied by 3.<sup>4</sup> No scale in effect on May 15, 1917.<sup>5</sup> On new work, time and one-half; on Saturday after 4 p. m., double time. On repair work, double time; on Saturday after 4 p. m. and on Sunday night, regular rate multiplied by 2 1/2.<sup>6</sup> On new work, time and one-half on Saturday afternoon, double time on Sunday; on repair work, double time on Saturday afternoon. For Labor Day, regular rate multiplied by 5.<sup>7</sup> On Saturday afternoon, on new work double time, on repair work triple time. For Labor Day, regular rate multiplied by 5.<sup>8</sup> Time and one-half after 1 hour.<sup>9</sup> Time and one-half after 1 hour; on Saturday for all overtime.<sup>10</sup> Not organized on May 15, 1917.<sup>11</sup> Time and one-half, with a minimum of 5 hours' pay for 3 hours and 20 minutes' work.<sup>12</sup> For explanation of changes in rates in railroad shops, see p. 134.<sup>13</sup> Work 53 hours, paid for 54.<sup>14</sup> During July and August work 5 hours on Saturday, 50 hours per week, paid for 53.<sup>15</sup> On new work; on repair work, double time.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur-day half holi- days.	Rate of wages—		Hours. Full days; Saturdays; full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- tiplied by—	For Sun- days and holi- days, regu- lar rate mul- tiplied by—			Per hour.	Per week, full time.	
<b>BOILER MAKERS' HELPERS— concluded.</b>									
Philadelphia, Pa.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>	
Manufacturing shops.....	55.0	24.20	2	1 2	8-4-44	12	37.5	18.00	8-8-48
Outside.....	65.0	28.60	2	1 2	8-4-44	12	43.8	19.25	8-4-44
Shipyards.....	60.0	26.40	1 1/2	2	8-4-44	12	(2)	(2)	(2)
Shipyards.....	46.0	20.24	1 1/2	2	8-4-44	12	(2)	(2)	(2)
Pittsburgh, Pa.:									
Manufacturing shops.....	45.0	22.50	(2)	4 3	9-5-50	12	34.5	17.25	9-5-50
Outside.....	68.8	30.25	2	(2)	8-4-44	12	56.3	24.75	8-4-44
Railroad shops.....	45.0	21.60	1	1 1/2	8-8-48	.....	23.5	12.60	9-9-54
Portland, Me.:									
Railroad shops.....	45.0	21.60	1	1 1/2	8-8-48	.....	(2)	(2)	(2)
Rochester, N. Y.:									
Manufacturing and job- bing shops.....	47.5	22.80	2	2	8-8-48	.....	37.5	18.00	8-8-48
Springfield, Mass.:									
Railroad shops.....	45.0	21.60	1	1 1/2	8-8-48	.....	29.0	15.37	9-8-53
<b>COPPERSMITHS.</b>									
Boston, Mass.....	62.5	30.00	2	2	8-8-48	.....	55.0	26.40	8-8-48
New Haven, Conn.....	38.5	20.79	1 1/2	1 1/2	9-8-53	12	(2)	(2)	(2)
Do.....	30.0	16.20	1 1/2	1 1/2	9-8-53	.....	(2)	(2)	(2)
New York, N. Y.....	73.1	32.18	10 2/24	10 2/24	8-4-44	12	62.5	30.00	8-8-48
Philadelphia, Pa.:									
Inside, A.....	70.0	33.60	2	2	8-8-48	.....	55.0	26.40	8-8-48
Inside, B.....	70.0	33.60	2	2	8-8-48	.....	50.0	24.00	8-8-48
Outside.....	76.3	33.55	2	2	8-4-44	12	60.0	26.40	8-4-44
<b>CORE MAKERS.</b>									
Boston, Mass.....	58.3	31.50	1 1/2	2	9-9-54	.....	50.0	27.00	9-9-54
Bridgeport, Conn.....	41.7	22.50	1 1/2	2	9-9-54	.....	41.7	22.50	9-9-54
Buffalo, N. Y.....	58.3	31.50	1 1/2	2	9-9-54	.....	47.2	25.50	9-9-54
Fall River, Mass.....	50.0	27.00	1 1/2	2	9-9-54	.....	41.7	22.50	9-9-54
Newark, N. J.....	55.6	30.00	1 1/2	2	9-9-54	.....	47.2	25.50	9-9-54
New York, N. Y.....	52.8	28.50	1 1/2	2	9-9-54	.....	47.2	25.50	9-9-54
Marine work.....	72.5	34.80	1 1/2	2	8-8-48	.....	47.2	25.50	9-9-54
Philadelphia, Pa.....	68.8	33.00	1 1/2	2	8-8-48	.....	50.0	27.00	9-9-54
Pittsburgh, Pa.....	65.6	31.50	1 1/2	2	8-8-48	.....	50.0	24.00	8-8-48
Providence, R. I.....	40.0	22.00	1 1/2	2	10-5-55	12	40.0	22.00	10-5-55
Rochester, N. Y.....	58.3	31.50	1 1/2	2	9-9-54	.....	47.2	25.50	9-9-54
Scranton, Pa.:									
Manufacturing shops, machinery.....	55.6	30.00	1 1/2	2	9-9-54	.....	38.9	21.00	9-9-54
Manufacturing shops, hot water and steam heating.....	55.6	30.00	1 1/2	2	9-9-54	.....	36.1	19.50	9-9-54

<sup>1</sup> On Labor Day, regular rate multiplied by 3.<sup>2</sup> No scale in effect on May 15, 1917.<sup>3</sup> On new work, time and one-half; on Saturdays after 4 p. m., double time. On repair work, double time; on Saturday after 4 p. m. and on Sunday night, regular rate multiplied by 2<sup>1</sup>/<sub>2</sub>.<sup>4</sup> On new work, time and one-half on Saturday afternoon, double time on Sunday; on repair work, double time on Saturday afternoon. On Labor Day, regular rate multiplied by 5.<sup>5</sup> On Saturday afternoon, on new work, double time; on repair work, triple time. On Labor Day, regular rate multiplied by 5.<sup>6</sup> Time and one-half after 1 hour.<sup>7</sup> Time and one-half after 1 hour: on Saturday for all overtime.<sup>8</sup> Not organized on May 15, 1917.<sup>9</sup> Work 53 hours, paid for 54.<sup>10</sup> On repair work; on new work, double time.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Num- ber of mos. with Sat- ur- day half holi- days.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
CORE MAKERS—concluded.										
Springfield, Mass.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Brass and iron.....	55.6	30.00	1½	3	9-9-54	.....	44.4	24.00	9-9-54	9-9-54
Worcester, Mass.....	50.0	27.00	1½	3	9-9-54	.....	44.4	24.00	9-9-54	9-9-54
MACHINISTS. <sup>1</sup>										
Boston, Mass.:										
Manufacturing shops, A.	55.0	24.75	1½	2	8-5-45	12	50.0	22.50	8-5-45	8-5-45
Manufacturing shops, B.	55.0	27.50	1½	2	9-5-50	12	50.0	25.00	9-5-50	9-5-50
Manufacturing shops, C.	55.0	26.40	1½	2	8½-4½-48	12	50.0	24.00	8½-4½-48	8½-4½-48
Tool and die makers, shops, C.....	65.0	31.20	1½	2	8½-4½-48	12	58.0	27.84	8½-4½-48	8½-4½-48
Railroad shops, road A.	68.0	32.64	1½	1½	8-8-48	.....	32.5	17.55	9-8-53	9-8-53
Railroad shops, road B.	68.0	32.64	1½	1½	8-8-48	.....	32.5	17.55	9-8-53	9-8-53
Bridgeport, Conn.:										
Manufacturing shops.....	55.0	26.40	1½	2	8½-5-48	12	45.0	21.60	8½-5-48	8½-5-48
Tool and die makers.....	75.0	36.00	1½	2	8½-5-48	12	55.0	26.40	8½-5-48	8½-5-48
Buffalo, N. Y.:										
Manufacturing shops, A.	55.0	29.70	1½	2	9-9-54	.....	40.0	21.60	9-9-54	9-9-54
Manufacturing shops, B.	55.0	26.40	1½	2	8-8-48	.....	40.0	19.20	8-8-48	8-8-48
Die sinkers (for drop forging machines).....	90.0	48.60	1½	2	9-9-54	.....	70.0	37.80	9-9-54	9-9-54
Tool and die makers.....	70.0	33.60	1½	2	8-8-48	.....	50.0	24.00	8-8-48	8-8-48
Specialists.....	50.0	24.00	1½	2	8-8-48	.....	35.0	16.80	8-8-48	8-8-48
Outside.....	75.0	33.00	2	2	8-4-44	12	56.3	27.00	8-8-48	8-8-48
Railroad shops, road B.	68.0	32.64	1½	1½	8-8-48	.....	42.5	22.95	9-9-54	9-9-54
Railroad shops, road D.	68.0	32.64	1½	1½	8-8-48	.....	34.0	20.40	10-10-60	10-10-60
Railroad shops, road E.	68.0	32.64	1½	1½	8-8-48	.....	34.0	20.40	10-10-60	10-10-60
Railroad shops, road F.	68.0	32.64	1½	1½	8-8-48	.....	37.0	22.20	10-10-60	10-10-60
Railroad shops, road G.	68.0	32.64	1½	1½	8-8-48	.....	36.0	21.60	10-10-60	10-10-60
Newark, N. J.:										
Manufacturing shops, A.	45.0	22.50	1½	2	9-5-50	12	40.0	21.60	9-9-54	9-9-54
Manufacturing shops, B.	55.0	26.40	1½	2	8-8-48	.....	45.0	21.60	8-8-48	8-8-48
Tool and die makers, shops, A.....	65.0	31.20	1½	2	8½-4½-48	12	45.0	24.30	9-9-54	9-9-54
Tool and die makers, shops, B.....	65.0	31.20	1½	2	8-8-48	.....	50.0	24.00	8-8-48	8-8-48
Outside.....	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	8-4-44
Breweries.....	69.8	33.50	1½	2	8-8-48	.....	50.0	24.00	8-8-48	8-8-48
New Haven, Conn.:										
Manufacturing shops.....	60.0	28.80	1½	2	8-8-48	.....	50.0	24.00	8-8-48	8-8-48
Tool and die makers.....	70.0	33.60	1½	2	8-8-48	.....	55.0	26.40	8-8-48	8-8-48
Specialists.....	50.0	24.00	1½	2	8-8-48	.....	40.0	19.20	8-8-48	8-8-48
Outside.....	60.0	28.80	1½	2	8-8-48	.....	50.0	24.00	8-8-48	8-8-48
Railroad shops.....	68.0	36.72	1½	1½	8-8-48	.....	32.0	17.28	9-8-53	9-8-53
New York, N. Y.:										
Manufacturing shops.....	73.0	35.04	1½	2	8-8-48	.....	56.3	27.00	8-8-48	8-8-48
Tool and die makers.....	82.0	39.36	1½	2	8-8-48	.....	65.0	31.20	8-8-48	8-8-48
Marine work.....	72.5	34.80	1½	2	8-8-48	.....	56.3	27.00	8-8-48	8-8-48
Auto repair shops.....	75.0	36.00	2	2	8-8-48	.....	56.3	27.00	8-8-48	8-8-48
Printing-press factories.	50.0	24.00	1½	2	8-8-48	.....	50.0	24.00	8-8-48	8-8-48
Outside.....	75.0	33.00	2	2	8-4-44	12	75.0	33.00	8-4-44	8-4-44

<sup>1</sup> For explanation of changes in rates in railroad shops, see p. 134.

<sup>2</sup> Time and one-half after 1 hour; on Saturday for all overtime.

<sup>3</sup> Work 53 hours, paid for 54.

<sup>4</sup> Double time after midnight.

<sup>5</sup> Double time after 10 p. m.

<sup>6</sup> Time and one-half after 1 hour.

<sup>7</sup> Time and one-half after 2 hours.

<sup>8</sup> Time and one-half after 4 hours.

<sup>9</sup> Hours vary, but total 54 per week.

<sup>10</sup> Hours vary, but total 48 per week.

<sup>11</sup> Minimum; maximum 55 hours per week.

<sup>12</sup> Double time after 9 p. m.

<sup>13</sup> Triple time after 9 p. m.

<sup>14</sup> Scale became \$1 on Aug. 1, 1918.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holi- days.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
MACHINISTS—concluded.										
Philadelphia, Pa.:	Cts.	Dolls.					Cts.	Dolls.		
Manufacturing shops, A.	65.0	35.10	1½	2	19—9—54		48.0	25.92	19—9—54	
Manufacturing shops, B.	72.5	34.80	2 1½	2	8½—4½—48	12	48.0	23.04	8—8—48	
Tool and die makers, shops, A.	75.0	40.50	1½	2	19—9—54		60.0	32.40	19—9—54	
Tool and die makers, shops B.	78.0	37.44	2 1½	2	8½—4½—48	12	60.0	28.80	8—8—48	
Dry docks and repair work.	82.5	36.30	2	2	8—4—44	12	(*)	(*)	(*)	
First class, shipyards.	72.5	31.90	1½	2	8—4—44	12	(*)	(*)	(*)	
Second class, shipyards.	62.5	27.50	1½	2	8—4—44	12	(*)	(*)	(*)	
Outside.	85.0	37.40	2	2	8—4—44	12	75.0	36.00	8—8—48	
Breweries.	65.0	31.20	4 1½	2	8½—4½—48	12	55.0	26.40	8—8—48	
Railroad shops.	68.0	32.64	* 1	1½	8—8—48		42.0	22.68	9—9—54	
Pittsburgh, Pa.:										
Manufacturing shops, A.	55.0	29.70	1½	2	9—9—54		50.0	27.00	9—9—54	
Manufacturing shops, D.	60.0	28.80	1½	2	8½—4½—48	12	55.0	26.40	8½—4½—48	
Outside.	62.5	27.50	* 1½	2	8—4—44	12	62.5	27.50	8—4—44	
Breweries.	55.0	26.40	7 1½	2	8—8—48		50.0	24.00	8—8—48	
Railroad shops, road A.	68.0	32.64	* 1	1½	8—8—48		42.0	22.68	9—9—54	
Railroad shops, road B.	68.0	32.64	* 1	1½	8—8—48		45.0	24.30	9—9—54	
Portland, Me.:										
Railroad shops.	68.0	32.64	* 1	1½	8—8—48		(*)	(*)	(*)	
Providence, R. I.:										
Manufacturing.	35.0	17.50	1½	2	9—5—50	12	30.0	16.50	10—5—55	
Specialists.	30.0	15.00	1½	2	9—5—50	12	25.0	13.75	10—5—55	
Auto repair shops.	42.1	20.20	* 1½	2	8—8—48		40.0	19.20	8—8—48	
Breweries.	50.0	24.00	2	2	8—8—48		50.0	24.00	8—8—48	
Railroad shops.	68.0	32.64	* 1	1½	8—8—48		32.0	17.28	10 9—8—53	
Rochester, N. Y.:										
Manufacturing shops.	55.0	26.40	1½	2	8—8—48		45.0	21.60	8—8—48	
Jobbing shops.	55.0	26.40	1½	2	8—8—48		45.0	24.30	9—9—54	
Tool and die makers, manufacturing shops.	65.0	31.20	1½	2	8—8—48		55.0	26.40	8—8—48	
Tool and die makers, jobbing shops.	65.0	31.20	1	2	8—8—48		55.0	27.50	9—5—50	
Railroad shops.	68.0	32.64	* 1	1½	8—8—48		42.0	22.68	9—9—54	
Railroad shops.	68.0	32.64	* 1	1½	8—8—48		39.0	21.06	9—9—54	
Railroad shops.	68.0	32.64	* 1	1½	8—8—48		35.0	18.90	9—9—54	
Specialists, railroad shops.	68.0	32.64	* 1	1½	8—8—48		30.0	16.20	9—9—54	
Springfield, Mass.:										
Railroad shops.	68.0	32.64	* 1	1½	8—8—48		34.5	18.29	9—8—53	
Worcester, Mass.:										
Manufacturing shops.	47.5	22.80	2 1½	2	8—8—48		(*)	(*)	(*)	
Tool makers.	52.5	25.20	2 1½	2	8—8—48		(*)	(*)	(*)	
Railroad shops, road A.	68.0	32.64	* 1	1½	8—8—48		36.0	19.44	10 9—8—53	
Railroad shops, road B.	68.0	32.64	* 1	1½	8—8—48		34.5	18.29	9—8—53	
Railroad shops, road C.	68.0	32.64	* 1	1½	8—8—48		26.0	19.44	10 9—8—53	

1 Hours vary, but total 54 per week.

2 Double time after midnight.

3 No scale in effect on May 15, 1917.

4 Double time after 9 p. m.

5 Time and one-half after 1 hour.

6 Double time after midnight and on Saturday afternoon.

7 Double time after 10 p. m.

8 Time and one-half after 1 hour, on Saturday for all overtime.

9 Double time after 5 hours of overtime.

10 Work 53 hours, paid for 54.

11 Minimum, 5 hours' pay for 3 hours and 20 minutes' work.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- tiplied by—	For Sun- days and holidays, regu- lar rate mul- tiplied by—			Per hour.	Per week, full time.	
<b>MACHINISTS' HELPERS.<sup>1</sup></b>									
Boston, Mass.:	Cts.	Dolls.					Cts.	Dolls.	
Railroad shops, road A...	45.0	21.60	1	1½	8-8-48		24.5	13.23	9-8-53
Railroad shops, road B...	45.0	21.60	1	1½	8-8-48		26.0	14.04	9-8-53
Buffalo, N. Y.:									
Manufacturing shops, A...	40.0	21.60	1½	2	9-9-54		30.0	16.20	9-9-54
Manufacturing shops, B...	40.0	19.20	1½	2	8-8-48		30.0	14.40	8-8-48
Outside.....	55.0	24.20	2	2	8-4-44	12	30.0	14.40	8-8-48
Newark, N. J.:									
Outside.....	50.0	22.00	2	2	8-4-44	12	43.8	19.25	8-4-44
Breweries.....	49.0	23.50	1½	2	8-8-48		36.5	17.50	8-8-48
New Haven, Conn.:									
Outside.....	45.0	21.60	1½	2	8-8-48		37.5	18.00	8-8-48
Railroad shops.....	45.0	21.60	1	1½	8-8-48		26.0	14.04	9-8-53
New York, N. Y.:									
Manufacturing shops.....	43.8	21.00	1½	2	8-8-48		43.8	21.00	8-8-48
Outside.....	43.8	19.25	2	2	8-4-44	12	43.8	19.25	8-4-44
Pittsburgh, Pa.:									
Railroad shops, A.....	45.0	21.60	1	1½	8-8-48		23.0	12.42	9-9-54
Railroad shops, B.....	45.0	21.60	1	1½	8-8-48		31.5	17.01	9-9-54
Portland, Me.:									
Railroad shops.....	45.0	21.60	1	1½	8-8-48		( <sup>8</sup> )	( <sup>8</sup> )	( <sup>8</sup> )
Providence, R. I.:									
Breweries.....	37.5	18.00	2	2	8-8-48		37.5	18.00	8-8-48
Railroad shops.....	45.0	21.60	1	1½	8-8-48		25.0	13.50	9-8-53
Springfield, Mass.:									
Railroad shops.....	45.0	21.60	1	1½	8-8-48		27.0	14.31	9-8-53
Worcester, Mass.:									
Railroad shops, A.....	45.0	21.60	1	1½	8-8-48		29.0	15.66	9-8-53
Railroad shops, B.....	45.0	21.60	1	1½	8-8-48		28.0	14.85	9-8-53
<b>METAL POLISHERS AND BUFFERS.</b>									
Boston, Mass.....	46.9	22.50	1½	2	8½-4½-48	12	46.9	22.50	8½-4½-48
Bridgeport, Conn.:									
Shops A.....	34.6	16.61	1½	2	8½-4½-48	12	34.6	16.61	8½-4½-48
Shops B.....	40.0	19.20	1½	2	8-8-48		40.0	19.20	8-8-48
Shops C.....	38.0	18.24	1½	1½	8-8-48		38.0	18.24	8-8-48
Buffalo, N. Y.:									
Shops A.....	40.0	21.60	1½	1½	9-9-54		35.0	18.90	9-9-54
Shops B.....	36.0	19.80	1½	1½	10-5-55	12	35.0	19.25	10-5-55
Newark, N. J.:									
Shops A.....	55.0	30.25	1½	2	10-5-55	12	45.0	24.75	10-5-55
Shops B.....	56.0	29.12	1½	2	9½-4½-52	12	45.0	23.63	9½-4½-52
Shops D.....	57.0	27.36	1½	2	8-8-48		35.0	16.80	8-8-48
Shops E.....	50.0	24.75	1½	2	9-4½-49½	12	45.0	22.28	9-4½-49½
Shops F.....	55.0	29.70	1½	2	9-9-54		35.0	18.90	9-9-54
Shops G.....	60.0	30.00	1½	2	9-5-50	12	45.0	24.75	10-5-55
Shops H.....	65.0	31.20	1½	2	8-8-48		( <sup>10</sup> )	( <sup>10</sup> )	( <sup>10</sup> )
New Haven, Conn.....	42.0	23.10	1	1	10-5-55	12	35.0	19.25	10-5-55
New York.....	70.0	33.60	2	2	8-8-48		42.0	21.00	9-5-50
Do.....	70.0	30.80	2	2	8-4-44	12	( <sup>8</sup> )	( <sup>8</sup> )	( <sup>8</sup> )

<sup>1</sup> For explanation of changes in rates in railroad shops, see p. 134.<sup>2</sup> Time and one-half after 1 hour; on Saturday for all overtime.<sup>3</sup> Work 53 hours, paid for 54.<sup>4</sup> Double time after midnight.<sup>5</sup> Double time after 10 p. m.<sup>6</sup> Double time after 9 p. m.<sup>7</sup> Time and one-half after 1 hour.<sup>8</sup> No scale in effect on May 15, 1917.<sup>9</sup> Hours vary, but total 48 per week.<sup>10</sup> Not organized on May 15, 1917.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Continued.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur- day half holl- days.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
METAL POLISHERS AND BUFFERS—concluded.										
Philadelphia, Pa.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Shops A.....	40.0	20.00	1½	2	9—5—50	12	40.0	20.00	9—5—50	
Shops B.....	64.6	31.00	1½	2	8—8—48	.....	50.0	24.00	8—8—48	
Pittsburgh, Pa.:										
Shops A.....	54.0	29.16	2	2	9—9—54	3	45.0	24.30	9—9—54	1
Shops C.....	60.0	26.40	2	2	8—4—44	12	45.0	21.60	8—8—48	
Shops D.....	60.0	28.80	2	2	8½—4—48	12	50.0	24.00	8—8—48	
Jobbing shops.....	60.0	26.40	2	2	8—4—44	12	45.0	22.50	9—5—50	
Rochester, N. Y.:										
Shops A.....	57.5	28.46	1½	2	9—4½—49½	12	44.3	21.90	9—4½—49½	
Shops B.....	45.0	22.28	1½	2	9—4½—49½	12	45.0	22.28	9—4½—49½	
Springfield, Mass.:										
Shops A.....	48.0	23.04	1½	2	8½—4½—48	12	48.0	23.04	8½—4½—48	
Shops B.....	58.0	27.84	1½	2	8½—4½—48	12	58.0	27.84	8½—4½—48	
Shops C.....	60.0	30.00	1½	2	9—5—50	12	60.0	30.00	9—5—50	
MOLDERS: IRON.										
Boston, Mass.:										
Iron and brass.....	58.3	31.50	1½	2	9—9—54	.....	50.0	27.00	9—9—54	
Buffalo, N. Y.:										
Iron and brass.....	58.3	31.50	1½	2	9—9—54	.....	47.2	25.50	9—9—54	
Bridgeport, Conn.:										
Iron and brass.....	41.7	22.50	1½	2	9—9—54	.....	41.7	22.50	9—9—54	
Fall River, Mass.:	50.0	27.00	1½	2	9—9—54	.....	41.7	22.50	9—9—54	
Newark, N. J.:										
Iron.....	55.6	30.00	1½	2	9—9—54	.....	47.2	25.50	9—9—54	
Brass.....	56.0	28.00	1½	2	9—5—50	12	42.0	21.00	9—5—50	
New York, N. Y.:										
Iron.....	52.8	28.50	1½	2	9—9—54	.....	47.2	25.50	9—9—54	
Iron and brass, marine work.....	72.5	34.80	1½	2	8—8—48	.....	47.2	25.50	9—9—54	
Philadelphia, Pa.:	68.8	33.00	1½	2	8—8—48	.....	50.0	27.00	9—9—54	
Pittsburgh, Pa.:										
Iron and brass.....	65.6	31.50	1½	2	8—8—48	.....	50.0	24.00	8—8—48	
Portland, Me.:	55.6	30.00	1½	2	9—9—54	.....	44.4	24.00	9—9—54	
Providence, R. I.:	40.0	22.00	1½	2	10—5—55	12	40.0	22.00	10—5—55	
Rochester, N. Y.:										
Iron and brass.....	58.3	31.50	1½	2	9—9—54	.....	47.2	25.50	9—9—54	
Scranton, Pa.:										
Iron and brass, machin- ery.....	55.6	30.00	1½	2	9—9—54	.....	38.9	21.00	9—9—54	
Hot water and steam heating.....	58.3	31.50	1½	2	9—9—54	.....	47.2	25.50	9—9—54	
Springfield, Mass.:										
Iron and brass.....	55.6	30.00	1½	2	9—9—54	.....	44.4	24.00	9—9—54	
	50.0	27.00	1½	2	9—9—54	.....	44.4	24.00	9—9—54	

<sup>1</sup> 9½ hours full day, 5½ hours on Saturday, June to August, inclusive.

## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## METAL TRADES—Concluded.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur-day half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate multi- plied by—	For Sun- days and holi- days, regu- lar rate multi- plied by—			Per hour.	Per week, full time.		
PATTERN MAKERS.										
Boston, Mass.:	Cts.	Dolls.					Cts.	Dolls.		
Manufacturing shops.....	75.0	36.00	1½	1½	8½-4½-48	12	60.0	28.80	8½-4½-48	
Jobbing shops.....	80.0	38.40	2	2	8½-4½-48	12	60.0	28.80	8½-4½-48	
Bridgeport, Conn.:										
Manufacturing shops.....	75.0	36.00	1½	2	8½-4½-48	12	62.5	30.00	8½-4½-48	
Jobbing shops.....	80.0	38.40	1½	2	8½-4½-48	12	65.0	31.20	8½-4½-48	
Buffalo, N. Y.:										
Manufacturing shops, A.	73.0	39.42	2	2	9-9-54	.....	55.0	29.70	9-9-54	
Manufacturing shops, B.	75.0	37.50	2	2	9-5-50	12	60.0	30.00	9-5-50	
Manufacturing shops, C.	72.0	36.72	2	2	8½-8½-51	.....	55.0	28.05	8½-8½-51	
Manufacturing shops, D.	75.0	36.00	2	2	8-8-48	.....	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	
Jobbing shops.....	72.5	31.90	2	2	8-4-44	12	60.0	26.40	8-4-44	
Newark, N. J.:										
Manufacturing shops.....	75.0	36.00	2	2	8½-4½-48	12	57.0	28.22	9-4½-49½	
Jobbing shops.....	80.0	35.20	2	2	8-4-44	12	62.5	27.50	8-4-44	
New Haven, Conn.:	60.0	30.00	1½	2	9-5-50	12	50.0	25.00	9-5-50	
New York, N. Y.:										
Manufacturing shops, A.	90.0	39.60	2	2	8-4-44	12	56.3	24.75	8-4-44	
Manufacturing shops, B.	75.0	36.00	2	2	8½-4½-48	12	51.0	24.48	8½-4½-48	
Manufacturing shops, C.	75.0	36.00	2	2	8½-4½-47	12	51.0	24.48	8½-5½-48	
Manufacturing shops, D.	75.0	36.00	2	2	8-8-48	.....	56.3	27.00	8-8-48	
Jobbing shops.....	85.0	37.40	2	2	8-4-44	12	75.0	33.00	8-4-44	
Architectural work, wood	75.0	33.00	2	2	8-4-44	12	57.0	26.79	8-7-47	
Architectural work, plas- ter.....	67.0	29.48	2	2	8-4-44	12	54.5	25.62	8-7-47	
Philadelphia, Pa.:										
Manufacturing shops, A.	75.0	33.00	6 1½	2	8-4-44	12	55.0	27.50	9-5-50	
Manufacturing shops, B.	75.0	37.13	1½	2	9-4½-49½	12	55.0	30.25	10-5-55	
Manufacturing shops, C.	75.0	33.00	6 1½	2	8-4-44	12	55.0	24.20	8-4-44	
Jobbing shops, A.....	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44	
Jobbing shops, B.....	75.0	33.00	2	2	8-4-44	12	62.5	27.50	8-4-44	
Pittsburgh, Pa.:										
Manufacturing shops.....	75.0	39.00	1½	2	9½-4½-52	12	55.0	28.60	9½-4½-52	
Jobbing shops.....	80.0	40.00	1½	2	9-5-50	12	55.0	27.50	9-5-50	
Providence, R. I.:	60.0	33.00	1½	2	10-5-55	12	45.0	24.75	10-5-55	
Rochester, N. Y.:	62.0	29.76	7 1½	2	8-8-48	.....	52.0	26.00	9-5-50	
Springfield, Mass.:	67.5	32.40	2	2	8-8-48	12	55.0	26.40	8½-4½-48	
Worcester, Mass.:	60.0	33.00	1½	2	10-5-55	12	45.0	24.75	10-5-55	

¹ Scale became 75 cents on June 1, 1918.

² Scale became 80 cents on June 1, 1918.

³ No scale in effect on May 15, 1917.

⁴ Scale became 85 cents on June 1, 1918.

⁵ Work 47 hours, paid for 48.

⁶ Double time after 10 p. m.

⁷ In some shops double time.

⁸ Hours vary to 8½ per day, but total 48 per week.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## FREIGHT HANDLERS.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur-day half holi- days.	Rate of wages—		Hours. Full days; Saturdays; full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- tiplied by—	For Sun- days and holi- days, regu- lar rate mul- tiplied by—			Per hour.	Per week, full time.	
Boston, Mass.:	Cts.	Dolls.					Cts.	Dolls.	
Coal handlers.....	30.6	16.50	1½	1½	9—9—54	.....	27.8	15.00	9—9—54
Coastwise.....	48.0	25.92	170c	(2)	9—9—54	.....	40.0	24.00	10—10—60
General cargo.....	50.0	27.00	175c	1100c	9—9—54	.....	40.0	23.60	10—9—59
Longshoreman.....	30.5	18.00	1½	2	10—9—59	.....	25.0	14.75	10—9—59
Railroad A.....	29.0	17.40	1	(2)	10—10—60	.....	25.0	15.00	10—10—60
Railroad B.....	29.0	17.40	1½	1½	10—10—60	.....	25.0	15.00	10—10—60
Railroad C.....	29.0	17.40	1½	1½	10—10—60	.....	25.0	15.00	10—10—60
Sugar, molasses, oranges.....	60.0	32.40	175c	1100c	9—9—54	.....	50.0	29.50	10—9—59
Buffalo, N. Y.:									
Elevator men.....	38.0	22.78	2	2	10—10—60	.....	38.0	22.78	10—10—60
Elevator men's helpers and car gang.....	30.0	18.00	2	2	10—10—60	.....	30.0	18.00	10—10—60
Package freight handlers, Union A.....	50.0	30.00	1	1	10—10—60	.....	40.0	24.00	10—10—60
Package freight handlers, Union B.....	42.0	25.20	1	1	10—10—60	.....	35.0	21.00	10—10—60
New York, N. Y.:									
Beef handlers.....	70.0	37.80	195c	1120c	9—9—54	.....	36.0	36.00	10—10—60
General cargo, coastwise vessels.....	48.0	25.92	170c	190c	9—9—54	.....	35.0	21.00	10—10—60
General cargo, foreign- bound vessels.....	50.0	27.00	1½	2	9—9—54	.....	40.0	24.00	10—10—60
Lumber, stone, sand, and coal handlers.....	35.0	21.00	1½	2	10—10—60	3	30.0	18.00	10—10—60
Munition handlers.....	100.0	54.00	2	2	9—9—54	.....	80.0	48.00	10—10—60
Philadelphia, Pa.:									
Grain handlers.....	60.0	36.00	1½	2	10—10—60	.....	(10)	(10)	(10)
Lumber handlers.....	60.0	33.00	1½	2	10—5—55	12	40.0	24.00	10—10—60
Longshoremen.....	50.0	30.00	1½	2	10—10—60	.....	40.0	24.00	10—10—60
Munition handlers.....	70.0	42.00	1½	2	10—10—60	.....	60.0	36.00	10—10—60
Oil handlers.....	65.0	39.00	1½	2	10—10—60	.....	55.0	33.00	10—10—60
Portland, Me.....	50.0	27.00	1½	2	9—9—54	.....	35.0	21.00	10—10—60

<sup>1</sup> Rate in cents per hour.

<sup>2</sup> On Sunday, Christmas, July 4, and Labor Day, 90 cents per hour; on other holidays, 70 cents.

<sup>3</sup> Full day's pay for 7 hours' work.

<sup>4</sup> 48 hours per week, January to March, inclusive.

<sup>5</sup> On Sunday, Christmas, and July 4; on other holidays, time and one-half.

<sup>6</sup> And on Saturday afternoon, June to August, inclusive.

<sup>7</sup> 55 hours per week, June to August, inclusive.

<sup>8</sup> On Sunday, Christmas, and July 4; on other holidays, single time.

<sup>9</sup> And on Saturday after 6 p.m., and for all meal hours.

<sup>10</sup> No scale in effect on May 15, 1917.



## UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Continued.

## GRANITE AND STONE TRADES.

Occupation and city.	May 15, 1918.						May 15, 1917.			
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- urday half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.	
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.		
GRANITE CUTTERS.										
Boston, Mass.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>		
Outside <sup>1</sup> .....	63.0	27.72	1½	2	8-4-44	12	52.5	23.10	8-4-44	
Outside <sup>2</sup> .....	78.0	34.32	1½	2	8-4-44	12	65.0	28.60	8-4-44	
Inside.....	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Machine.....	63.8	28.05	1½	2	8-4-44	12	53.1	23.38	8-4-44	
Bridgeport, Conn.:										
Outside.....	62.5	27.50	1½	2	8-4-44	12	52.5	23.10	8-4-44	
Inside.....	62.5	27.50	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Machine.....	67.5	29.70	1½	2	8-4-44	12	53.0	23.32	8-4-44	
Buffalo, N. Y.:										
Outside.....	63.1	27.78	1½	2	8-4-44	12	56.3	24.75	8-4-44	
Inside.....	63.1	27.78	1½	2	8-4-44	12	53.1	23.38	8-4-44	
Machine.....	75.0	33.00	1½	2	8-4-44	12	62.5	27.50	8-4-44	
Fall River, Mass.:										
Outside and machine....	65.6	28.86	1½	2	8-4-44	12	53.1	23.38	8-4-44	
Manchester, N. H.:										
Inside.....	50.0	22.00	1½	2	8-4-44	12	50.0	22.00	8-4-44	
Newark, N. J.:										
Outside.....	62.5	27.50	1½	2	8-4-44	12	53.1	23.38	8-4-44	
Inside.....	62.5	27.50	1½	2	8-4-44	12	50.0	22.00	8-4-44	
New Haven, Conn.:										
Outside.....	60.0	26.40	1½	2	8-4-44	12	53.0	23.32	8-4-44	
Inside.....	60.0	26.40	1½	2	8-4-44	12	50.0	22.00	8-4-44	
New York, N. Y.:										
Outside.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
Outside <sup>3</sup> .....	75.0	33.00	2	2	8-4-44	12	68.8	30.25	8-4-44	
Inside.....	68.8	30.25	2	2	8-4-44	12	50.0	22.00	8-4-44	
Machine.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44	
Philadelphia, Pa.:										
Outside.....	70.0	30.80	1½	2	8-4-44	12	60.0	26.40	8-4-44	
Inside.....	65.0	28.60	1½	2	8-4-44	12	56.3	24.75	8-4-44	
Machine.....	70.0	30.80	1½	2	8-4-44	12	56.3	24.75	8-4-44	
Pittsburgh, Pa.:										
Outside.....	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44	
Inside and machine....	62.5	27.50	2	2	8-4-44	12	54.4	23.93	8-4-44	
Portland, Me. ....	60.0	26.40	2	2	8-4-44	12	50.0	22.00	8-4-44	
Providence, R. I.:										
Outside and inside.....	60.0	26.40	1½	( <sup>4</sup> )	8-4-44	12	50.0	22.00	8-4-44	
Machine.....	65.0	28.60	1½	( <sup>4</sup> )	8-4-44	12	55.0	24.20	8-4-44	
Rochester, N. Y. ....	64.0	28.16	1½	2	8-4-44	12	54.0	23.76	8-4-44	
Springfield, Mass.:										
Outside and inside.....	60.0	26.40	2	2	8-4-44	12	50.0	22.00	8-4-44	
Machine.....	66.3	29.15	2	2	8-4-44	12	56.3	24.75	8-4-44	
Worcester, Mass.:										
Outside and inside.....	60.0	26.40	5 1½	2	8-4-44	12	50.0	22.50	8-5-45	
Machine.....	63.0	27.72	6 1½	2	8-4-44	12	53.0	23.85	8-5-45	

<sup>1</sup> Working for granite companies.<sup>2</sup> Working for building contractors.<sup>3</sup> Trim and fit stone cut outside of city.

\* Work prohibited.

\* Double time from darkness to daybreak.

UNION SCALE OF WAGES AND HOURS OF LABOR IN EACH TRADE, IN THE NORTH ATLANTIC STATES, ON MAY 15, 1918, AND MAY 15, 1917—Concluded.

GRANITE AND STONE TRADES—Concluded.

Occupation and city.	May 15, 1918.						May 15, 1917.		
	Rate of wages—				Hours. Full days; Saturdays; full week.	Number of mos. with Sat- ur-day half holidays.	Rate of wages—		Hours. Full days; Saturdays; full week.
	Per hour.	Per week, full time.	For over- time, regu- lar rate mul- ti- plied by—	For Sun- days and holi- days, regu- lar rate mul- ti- plied by—			Per hour.	Per week, full time.	
STONECUTTERS.									
Boston, Mass.:	<i>Cts.</i>	<i>Dolls.</i>					<i>Cts.</i>	<i>Dolls.</i>	
Outside.....	75.0	33.00	2	2	8-4-44	12	70.0	30.80	8-4-44
Inside.....	70.0	30.80	2	2	8-4-44	12	62.5	27.50	8-4-44
Bridgeport, Conn.....	62.5	27.50	1½	2	8-4-44	12	56.3	24.75	8-4-44
Buffalo, N. Y.....	62.5	27.50	1½	2	8-4-44	12	62.5	27.50	8-4-44
Newark, N. J.:									
First class.....	68.8	30.25	1½	1½	8-4-44	12	68.8	30.25	8-4-44
Second class.....	68.8	30.25	1½	1½	8-4-44	12	62.5	27.50	8-4-44
New Haven, Conn.....	60.0	26.40	1½	2	8-4-44	12	56.3	24.75	8-4-44
New York, N. Y.:									
First class.....	68.8	30.25	2	2	8-4-44	12	68.8	30.25	8-4-44
Second class.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44
Bluestone.....	68.8	30.25	2	2	8-4-44	12	62.5	27.50	8-4-44
Philadelphia, Pa.:									
Outside.....	70.0	30.80	1½	2 2	8-4-44	12	70.0	30.80	8-4-44
Inside.....	65.0	28.60	1½	2 2	8-4-44	12	65.0	28.60	8-4-44
Pittsburgh, Pa.....	66.0	29.04	1½	2	8-4-44	12	62.5	27.50	8-4-44
Providence, R. I.....	62.5	27.50	(4)	(4)	8-4-44	12	62.5	27.50	8-4-44
Rochester, N. Y.....	70.0	30.80	1½	1½	8-4-44	12	60.0	26.40	8-4-44
Scranton, Pa.:									
Outside and inside.....	56.3	24.75	1½	2	8-4-44	12	50.0	22.00	8-4-44
Machine men.....	50.0	27.00	1½	2	9-9-54	.....	50.0	27.00	9-9-54
Springfield, Mass.....	56.3	24.75	1½	2	8-4-44	12	56.3	24.75	8-4-44

<sup>1</sup> Scale became 82.5 cents on June 1, 1918.

<sup>2</sup> And on Saturday afternoon.

<sup>3</sup> Scale became 72.5 cents on June 1, 1918.

<sup>4</sup> Work prohibited.

RATES OF WAGES PAID TO WORKERS PLACED BY PUBLIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918.

In the table which follows are given the rates of wages paid to workers placed in employment by public employment offices in the United States on the last day of July, 1918, or the date nearest the last day in July on which workers were placed, in 33 selected occupations. In a few instances no report was received for July. In such cases the figures for the preceding months were used. Data are presented for 198 employment offices, comprising 35 Federal employment offices, 6 Federal-municipal employment offices, 14 Federal-State employment offices, 1 Federal-county employment office, 6 Federal-State-municipal employment offices, 3 Federal-State-county-municipal employment offices, 4 municipal employment offices, and 6 State employment offices in 44 States and the District of Columbia.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY

[Fed.= Federal; Sta.= State; Co.= county; Mun.= municipal;

State, city, and kind of office.	Blacksmiths.	Boiler makers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
Alabama:					
Birmingham (Fed.)	\$0.72½ h.		\$0.75 h.	\$0.55 h.	\$1.00 d.
Mobile (Fed.)	.87½ h.	\$0.70 h.		\$0.40- .65 h.	
Arizona:					
Phoenix (Fed.-Sta.-Co.-Mun.)	5.50 d.	5.50 d.		6.00 d.	.35 h.
Tucson (Fed.)		.63½ h.	8.00 d.	6.40 d.	
Yuma (Fed.-Sta.-Co.-Mun.)				.70 h.	
Arkansas:					
Fort Smith (Fed.)			.80 h.	.55 h.	
Helena (Fed.)	.45 h.	.72 h.	.75 h.	.55 h.	2.00 d.
Little Rock (Fed.-Sta.)	.68 h.	.58½ h.	.87½ h.	.60 h.	1.00 d.
Pine Bluff (Fed.)				.55 h.	5.00 w.
Texarkana (Fed.)	.58½ h.	.58 h.	.87½ h.	.55 h.	
California:					
Bakersfield (Fed.)	5.00 d.		8.00 d.	6.00 d.	2.50 d.
El Centro (Fed.)	1 90.00 m.				
Eureka (Fed.-Sta.)	.50 h.			6.00 d.	.30 h.
Hollister (Fed.)					
Los Angeles (Fed.-Sta.-Mun.)	4.55 d.	.00 h.	6.00 d.	4.50 d.	.30 h.
Modesto (Fed.-Co.)					
Newcastle (Fed.-Sta.)					
Sacramento (Fed.-Sta.)	5.00 d.	.59 h.		6.00 d.	.35 h.
San Diego (Fed.)	4.00 d.			5.20 d.	.30 h.
San Francisco (Fed.)	5.80 d.	5.80 d.		6.00 d.	.36 h.
San Jose (Fed.-Sta.)					.25 h.
Santa Barbara (Fed.)					.25 h.
Santa Rosa (Fed.-Sta.)				5.00 d.	.25 h.
Colorado:					
Colorado Springs (Fed.-Sta.)					.30 h.
Denver (Fed.-Sta.)	.65 h.	.65 h.	8.00 d.	5.75 d.	.35 h.
Pueblo (Fed.-Sta.)				5.85 d.	.30 h.
Connecticut:					
Bridgeport (Sta.)				.70 h.	
Hartford (Sta.)					
New Haven (Sta.)					.40 h.
Norwich (Sta.)					
Waterbury (Sta.)					
Delaware:					
Wilmington (Fed.)	.70 h.	.70 h.		.67- .70 h.	
District of Columbia:					
Washington (Fed.)	.75 h.	.75 h.	.87½ h.	.75 h.	.20 h.
Florida:					
Jacksonville (Fed.)	\$0.55- .85 h.			.60- .72½ h.	6.00 w.
Miami (Fed.)				.62 h.	
Tampa (Fed.)				.55 h.	
Georgia:					
Atlanta (Fed.-Sta.)	.65 h.	.65 h.	.75 h.	.60 h.	10.00 w.
Macon (Fed.-Mun.)	.62 h.			.55 h.	
Savannah (Fed.)	.68 h.	.68 h.	5.00 d.	.65 h.	1.00 d.
Idaho:					
Boise (Mun.)	5.00 d.				.30 h.
Moscow (Fed.)				.70 h.	
St. Anthony (Fed.)	5.00 d.	5.77 d.		8.00 d.	1.50 d.
Illinois:					
Alton (Fed.)				.62½ h.	
Aurora (Fed.-Sta.)			.75 h.	.42½ h.	.25 h.
Bloomington (Fed.-Sta.)				.62 h.	.25 h.
Cairo (Fed.-Sta.)			.80 h.	.55- .72 h.	
Chicago (Fed.-Sta.)	.70 h.	.70 h.	.85 h.	.50- .62½ h.	2.35 d.
Danville (Fed.-Sta.)	.68 h.	.68 h.	.75 h.	.60 h.	.25 h.
Decatur (Fed.-Sta.)	.55 h.	.50 h.	.75 h.	.65 h.	.25 h.
East St. Louis (Fed.-Sta.)	.48 h.	.50 h.	.87½ h.	.70 h.	.20 h.
Galesburg (Fed.)				.60- .65 h.	
Joliet (Fed.-Sta.)		.60 h.			2.00 d.

<sup>1</sup> And board.<sup>2</sup> And board and room.<sup>3</sup> For 9 hours.



## PUBLIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918.

h.=hour; d.=day; w.=week; m.=month; y.=year.]

Cooks, male.	Cooks, female.	Drivers, teamsters, etc.	Dock laborers.	Farm hands.	Hod carriers.
\$20.00 w.	\$5.00 w.	\$2.50 d.		\$1.00 d.	
100.00 m.	70.00 m.	3.00 d.		3.25 d. 2.00 d.	\$3.50 d.
100.00 m.		3.25 d.		3.00 d.	
		3.00 d.		.25 h. 1.25 d.	3.00 d.
\$75.00-100.00 m.	\$4.00- 8.00 w.	3.00 d.		\$35.00- 50.00 m.	.35 h.
				<sup>1</sup> 2.00 d.	
60.00- 75.00 m. 75.00 m. 90.00 m.	45.00- 60.00 m. 40.00 m. 60.00 m.	2.50 d. 3.00 d. 5.00 d. <sup>1</sup> 2.50 d.	\$0.70 h. <sup>1</sup> 2.50 d.	60.00 m. 75.00 m. 3.00 d. 3.50 d.	4.00 d.
80.00 m. <sup>1</sup> 50.00- 75.00 m.	50.00 m. <sup>1</sup> 35.00- 50.00 m.	2.75 d.		<sup>2</sup> 60.00 m. <sup>1</sup> 3.00 d.	4.00 d.
				3.00 d.	
60.00-105.00 m. 75.00 m. 80.00 m. 50.00 m.	50.00 m. 35.00- 80.00 m. 30.00 m.	3.50 d. 3.25 d. 90.00 m. 2.50 d.	.40 h. .80 h.	<sup>1</sup> 2.50- 3.00 d. 50.00 m. <sup>1</sup> 2.50 d. 2.50 d.	
	50.00 m.	3.00 d.		<sup>1</sup> 50.00 m.	
80.00 m.	40.00 m.	3.50 d.		3.00 d.	
<sup>1</sup> 17.50 w. 4.00 d. 3.00 d.	<sup>2</sup> 10.00 w. 15.00 w.	2.75 d. 21.00 w. <sup>4</sup> 3.50 d.		<sup>2</sup> 40.00 m. 40.00 m.	4.50 d.
23.00 w. 21.00 w. 25.00 w.	15.00 w. 40.00 m. <sup>1</sup> 10.00 w.	21.00 w. 3.00 d.		50.00 m. 45.00 m. 60.00 m. <sup>1</sup> 45.00 m. <sup>1</sup> 25.00 m.	
				35.00- 40.00 m.	.56½ h.
70.00 m.	50.00 m.	15.00 w.	.35 h.	40.00 m.	.50 h.
7.00- 10.00 w.	6.00- 8.00 w.	\$2.00- 3.00 d.	\$0.30- .40 h.	1.25- 2.00 d. 2.00 d.	1.75 d.
25.00 w. 1.50 d.	5.00 w. <sup>1</sup> 5.00 w. 1.00 d.	15.00- 18.00 w. 1.75 d.	.30 h. .30 h.	8.00- 10.00 w. <sup>1</sup> 30.00 m. 40.00 m.	\$0.25- .30 h. 1.75 d.
115.00 m. 125.00 m. 3.50 d.	75.00 m. 100.00 m. 2.50 d.	3.50- 4.50 d. .35 h. 3.90 d.		75.00 m. 30- .40 h. <sup>1</sup> 3.00 d.	4.00 d.
70.00 m.	42.50 m.	22.50 w.		<sup>5</sup> 52.50 m.	.42½ h.
50.00-100.00 m. 18.00- 25.00 w. 15.00 w. .30 h.	10.00- 18.00 w. 10.00 w. .30 h.	21.00- 24.00 w. 3.00 d. .25 h.		<sup>2</sup> 40.00- 50.00 m. 40.00 m. 40.00 m.	.50 h. .55 h.
10.00 w.	6.00 w.	3.00 d.	3.00 d.	35.00 m. 3.50- 4.00 d.	.50 h.
15.00 w.		21.00 w.		3.00- 4.00 d.	

<sup>4</sup>For 10 hours.<sup>5</sup>\$65 m., married.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operators, male.	Laundry operators, female.
Alabama:					
Birmingham (Fed.)	\$5.00 w.		\$0.30 h.		\$8.00 w.
Mobile (Fed.)			\$0.30- .46 h.		
Arizona:					
Phoenix (Fed.-Sta.-Co.-Mun.)	40.00 m.	\$5.00 d.	3.00 d.		
Tucson (Fed.)			2.50- 2.75 d.		
Yuma (Fed.-Sta.-Co.-Mun.)			3.00 d.		
Arkansas:					
Fort Smith (Fed.)			.30 h.		
Helena (Fed.)	2.50 w.		2.25 d.		
Little Rock (Fed.-Sta.)	\$3.50- 5.00 w.	.75 h.	.30 h.		
Pine Bluff (Fed.)			2.50 d.		
Texarkana (Fed.)			.30 h.	\$12.00 w.	9.00 w.
California:					
Bakersfield (Fed.)	30.00 m.		3.50 d.		
El Centro (Fed.)			.45 h.		
Eureka (Fed.-Sta.)	30.00 m.		3.00 d.	22.50 w.	2.00 d.
Hollister (Fed.)					
Los Angeles (Fed.-Sta.-Mun.)	.35 h.	4.00 d.	3.00 d.	16.00 w.	\$8.00-10.00 w.
Modesto (Fed.-Co.)			4.00 d.		
Newcastle (Fed.-Sta.)			3.50 d.		
Sacramento (Fed.-Sta.)			3.50 d.		
San Diego (Fed.)	35.00-40.00 m.		3.00- 3.50 d.	2.50 d.	9.00 w.
San Francisco (Fed.)	\$ 2.00 d.		3.50- 4.00 d.	21.00 w.	9.00-18.00 w.
San Jose (Fed.-Sta.)	25.00 m.		3.50 d.		
Santa Barbara (Fed.)	30.00 m.		3.25 d.		2.00 d.
Santa Rosa (Fed.-Sta.)	35.00 m.		3.50 d.		
Colorado:					
Colorado Springs (Fed.-Sta.)	30.00 m.		.35 h.		
Denver (Fed.-Sta.)		5.50 d.	3.00 d.	20.00 w.	12.00 w.
Pueblo (Fed.-Sta.)	6.00 w.		.35 h.		1.00 d.
Connecticut:					
Bridgeport Sta.)	40.00 m.		.45 h.		.30 h.
Hartford (Sta.)	\$ 8.00 w.		.50 h.	3.00 d.	
New Haven (Sta.)	8.00 w.		3.00-4.25 d.		
Norwich (Sta.)	\$ 35.00 m.		3.50 d.		30.00 m.
Waterbury (Sta.)	\$ 25.00 m.				25.00 m.
Delaware:					
Wilmington (Fed.)			.40 h.		
District of Columbia:					
Washington (Fed.)	40.00 m.	.75 h.	.40 h.	65.00 m.	40.00 m.
Florida:					
Jacksonville (Fed.)	6.00 w.		.30 h.		
Miami (Fed.)	4.00 w.		2.50 d.		
Tampa (Fed.)			.30 h.		
Georgia:					
Atlanta (Fed.-Sta.)	4.00-6.00 w.	.70 h.	.25- .30 h.	15.00 w.	12.00 w.
Macon (Fed.-Mun.)	\$ 4.00 w.		.25 h.		
Savannah (Fed.)	.60 d.	.55 h.	.30 h.	1.00 d.	.75 d.
Idaho:					
Boise (Mun.)	30.00 m.		4.00 d.		
Moscow (Fed.)			.45 h.		
St. Anthony (Fed.)	1.50 d.	6.00 d.	4.00 d.	3.00 d.	2.50 d.
Illinois:					
Alton (Fed.)			3.00 d.		
Aurora (Fed.-Sta.)	7.00 w.	.75 h.	.35 h.		
Bloomington (Fed.-Sta.)	6.00 w.		.30 h.		
Cairo (Fed.-Sta.)		\$0.55- .72 h.	.25- .35 h.		
Chicago (Fed.-Sta.)	\$40.00-50.00 m.	7.00 d.	.35- .45 h.	20.00 w.	9.00-15.00 w.
Danville (Fed.-Sta.)	5.00 w.	.60 h.	.35 h.	15.00 w.	.10- .20 h.
Decatur (Fed.-Sta.)	7.00 w.	.72 h.	.30 h.	.40 h.	.25 h.
East St. Louis (Fed.-Sta.)	5.00 w.	.75 h.	3.00 d.	30.00 w.	9.00 w.
Galesburg (Fed.)	5.00 w.		.37 h.		
Joliet (Fed.-Sta.)			.35 h.		

1 For 9 hours.

2 And board.

LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$0.70 h. .72½ h.	<sup>1</sup> \$5.34 d.	\$0.55 h. .60 h.	\$0.75 h.	\$0.75 h.	\$10.00 w.
5.50 d. .61½ h.		5.00 d. 5.60 d.	7.00 d.	7.00 d.	10.00 w.
.61½ h.					
.72 h. .50 h.		.50 h.	.60 h.	.72 h. .60 h.	10.00 w.
.68 h. .58 h.	.60 h.	.55 h.	.75 h.	.75 h.	\$7.00-10.00 w.
5.00 d. .75 h.				5.00 d.	
.60 h.	4.50 d.	4.00 d.	5.00 d.	5.00 d.	12.00 w.
.59 h. .50 h. 5.80 d.	5.80 d.	4.55 d. 5.00 d. 5.84 d.			9.00-12.00 w. 10.00 w.
6.00 d. 5.75 d.	5.77½ d.				40.00 m.
.65 h.	6.00 d.	5.75 d. <sup>2</sup> 3.25 d.	6.00 d.	6.00 d.	12.00 w. 10.00 w.
.70 h.		.60 h. .50 h.			
.72 h. 21.00 w.					
.72 h.	\$0.63-.72 h.			.72 h.	10.00 w.
.70 h.	.62½ h.	.62½ h.	.75 h.	.85 h.	10.00 w.
\$0.60-.72½ h.					12.00 w.
.72 h.					
.70 h. .55 h. .68 h.	.60 h. .72½ h.	.50 h. .65 h.	.70 h. 4.00 d.	.70 h. .72½ h.	8.00-15.00 w. 12.00 w.
5.77 d.	5.77 d.	7.00 d.	8.00 d.	10.00 d.	3.00 d.
.62½ h. .50 h.	5.25 d.	.60 h.	.75 h.	.75 h.	8.00 w.
.70-.90 h. .68 h. .50 h.	5.00 d. .68 h. .50 h.	\$0.70-.80 h. .60 h. .55 h.	.75 h. .75 h. .55 h.	.75 h. .70 h. .72 h.	8.00-12.00 w. 10.00-15.00 w. 12.00 w.
.51 h. .55-.75 h. .60-.68 h.	.58 h. .363 h.	.80 h.	.87½ h.	.87½ h.	8.00 w.

<sup>1</sup> For 10 hours.<sup>2</sup> And board and room.



## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	Seamstresses.	Sewing-machine operators, male.	Sewing-machine operators, female.	Stenographers, male.	Stenographers, female.
Alabama:					
Birmingham (Fed.)	\$1.50 d.			\$125.00 m.	\$125.00 m.
Mobile (Fed.)					
Arizona:					
Phoenix (Fed.-Sta.-Co.-Mun.)				100.00 m.	80.00 m.
Tucson (Fed.)					
Yuma (Fed.-Sta.-Co.-Mun.)					
Arkansas:					
Fort Smith (Fed.)					2.50 d.
Helena (Fed.)				100.00 m.	75.00 m.
Little Rock (Fed.-Sta.)	\$9.00-15.00 w.			125.00 m.	\$60.00-125.00 m.
Pine Bluff (Fed.)					
Texarkana (Fed.)					
California:					
Bakersfield (Fed.)					
El Centro (Fed.)				85.00 m.	85.00 m.
Eureka (Fed.-Sta.)					
Hollister (Fed.)					
Los Angeles (Fed.-Sta.-Mun.)	2.00 d.	\$15.00 w.			15.00 w.
Modesto (Fed.-Co.)					2.50 d.
Newcastle (Fed.-Sta.)					
Sacramento (Fed.-Sta.)					
San Diego (Fed.)	2.50 d.		\$2.50 d.		12.00 w.
San Francisco (Fed.)	2.50 d.		\$12.00-18.00 w.	85.00 m.	60.00-100.00 m.
San Jose (Fed.-Sta.)					
Santa Barbara (Fed.)					90.00 m.
Santa Rosa (Fed.-Sta.)			1.50 d.		50.00-80.00 m.
Colorado:					
Colorado Springs (Fed.-Sta.)					
Denver (Fed.-Sta.)	15.00 w.		15.00 w.	21.00 w.	12.00 w.
Pueblo (Fed.-Sta.)	1.50 d.				8.00 w.
Connecticut:					
Bridgeport (Sta.)					20.00 w.
Hartford (Sta.)					
New Haven (Sta.)		3.75 d.	1.75 d.		
Norwich (Sta.)					
Waterbury (Sta.)					
Delaware:					
Wilmington (Fed.)				\$15.00-25.00 w.	12.00-25.00 w.
District of Columbia:					
Washington (Fed.)	2.00 d.	3.00 d.	2.50 d.	100.00 m.	100.00 m.
Florida:					
Jacksonville (Fed.)				80.00-125.00 m.	60.00-125.00 m.
Miami (Fed.)					
Tampa (Fed.)					
Georgia:					
Atlanta (Fed.-Sta.)	15.00 w.	\$15.00-20.00 w.	12.00-15.00 w.	100.00-125.00 m.	75.00-100.00 m.
Macon (Fed.-Mun.)			10.00 w.	100.00 m.	65.00 m.
Savannah (Fed.)	12.00 w.	2.00 d.	1.75 d.	100.00 m.	75.00 m.
Idaho:					
Boise (Mun.)				125.00 m.	
Moscow (Fed.)				70.00-100.00 m.	
St. Anthony (Fed.)				4.00 d.	3.50 d.
Illinois:					
Alton (Fed.)					8.00 w.
Aurora (Fed.-Sta.)			10.00 w.	75.00 m.	40.00 m.
Bloomington (Fed.-Sta.)					13.00 w.
Cairo (Fed.-Sta.)					
Chicago (Fed.-Sta.)	3.50 d.		12.00-25.00 w.	100.00 m.	15.00-20.00 w.
Danville (Fed.-Sta.)	10.00 w.		8.00 w.	77.00 m.	8.00-15.00 w.
Decatur (Fed.-Sta.)				70.00 m.	60.00 m.
East St. Louis (Fed.-Sta.)	.20 h.	30.00 w.	.20 h.	90.00 m.	75.00 m.
Galesburg (Fed.)					* 10.00 w.
Joliet (Fed.-Sta.)				10.00-15.00 w.	10.00-15.00 w.

\* And board.

\* While learning.

\* And board and room.

## LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
\$0.75 h.		\$18.00 w.	\$10.00 w.	\$0.25 h.	\$1.60 d.
		15.00 w.	10.00 w.	3.00 d.	.35 h.
		60.00 m.		.40 h.	
	\$7.50 w.	10.00 w.		2.00 d.	1.00 d.
	7.00 w.	\$10.00- 12.00 w.	\$6.00- 12.00 w.		
				2.50 d.	.25 h.
		15.00 w.	12.50 w.	3.00 d.	1.50 d.
.50 h.		15.00 w.	9.00 w.	2.75 d.	.30 h.
				\$0.35- .45 h.	
		17.00 w.	9.00 w.	.35 h.	.30 h.
		<sup>1</sup> 60.00 m.	30.00-40.00 m.	.50 h.	.35 h.
			25.00 m.	3.00 d.	.25 h.
				.35 h.	
		30.00- 40.00 m.	35.00- 50.00 m.	2.00- 2.50 d.	2.00 d.
6.50 d.	12.00 w.	15.00 w.	<sup>1</sup> 10.00 w.	.35 h.	.30 h.
			12.00 w.	3.00 d.	2.00 d.
			8.00 w.	.30 h.	.25 h.
		18.00 w.	10.00 w.	.40 h.	.35 h.
			8.00 w.	.45 h.	.25 h.
		<sup>1</sup> 25.00 m.	<sup>1</sup> 8.00 w.		
	8.00 w.		10.00 w.		
.87 h.	12.00 w.	60.00 m.	10.00 w.	.40 h.	.20 h.
	5.00 w.	10.00 w.	8.00 w.		
.75 h.	\$9.00-15.00 w.	18.00 w.	15.00 w.		
.62½ h.	2.00 d.	1.50 d.	1.00 d.	1.50 d.	1.00 d.
		3.00 d.	12.00 w.	.40 h.	.35 h.
	1.50 d.	1.50 d.	1.40 d.	4.00 d.	1.50 d.
.80 h.	<sup>2</sup> 6.00 w.		8.00 w.	.40 h.	.25 h.
				<sup>1</sup> 1.00 d.	
.87 h.	23.00 m.	<sup>3</sup> 50.00- 60.00 m.	<sup>1</sup> 12.00- 15.00 w.	.30- .35 h.	\$10.00-18.00 w.
.50 h.	12.00-15.00 w.	10.00 w.	6.00 w.	.30 h.	.20 h.
	5.00 w.	12.00 w.	12.00 w.		
.70 h.	10.00 w.	18.00 w.	8.00 w.	.40 h.	.20 h.
			9.00 w.		

<sup>2</sup> Or \$32.50-40.00 m. and board and room.<sup>3</sup> Inexperienced.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	Blacksmiths.	Boiler makers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
<b>Illinois—Concluded.</b>					
Peoria (Sta.).....					\$2. 10 d.
Quincy (Fed.).....					1. 00 d.
Rockford (Fed.-Sta.)	\$0. 50 h.	\$0. 45 h.	\$0. 81½ h.	\$0. 70 h.	\$0. 25- .30 h.
Rock Island-Moline (Fed.-Sta.).....	.65 h.	\$0. 52- .75 h.	.81½ h.	.67½ h.	.25 h.
Springfield (Sta.)....	.65 h.	.55 h.	\$0. 85- .90 h.	.65 h.	2. 10 d.
<b>Indiana:</b>					
Evansville (Sta.).....				.50 h.	
Indianapolis (Fed.)..				.62½ h.	1. 50 d.
South Bend (Fed.-Sta.).....				.55 h.	.30 h.
Terre Haute (Sta.)....				.65 h.	
<b>Iowa:</b>					
Cedar Rapids (Fed.-Sta.).....				.62½ h.	9. 00 w.
Council Bluffs (Fed.-Sta.).....					
Davenport (Fed.-Sta.).....				.62½ h.	
Des Moines (Fed.-Sta.-Co.-Mun.)....	.55 h.	.65 h.	.81 h.	.65 h.	2. 50 d.
Mason City (Fed.-Sta.).....				.62½ h.	.30 h.
Ottumwa (Fed.-Sta.)..				.60 h.	
Sioux City (Fed.-Sta.).....		.68 h.		.60 h.	
Waterloo (Fed.-Sta.)..					
<b>Kansas:</b>					
Dodge City (Fed.)....				.60 h.	
Hutchinson (Fed.)....					
Parsons (Fed.).....					
Topeka (Fed.-Sta.)....	.50 h.	.52 h.	.75 h.	.62½ h.	.25 h.
Wichita (Fed.).....	.68 h.	.68 h.	.82½ h.	.70 h.	.25 h.
<b>Kentucky:</b>					
Louisville (Sta.).....				.55 h.	9. 00 w.
<b>Louisiana:</b>					
Alexandria (Fed.)....	.60 h.		.80 h.	.60 h.	
New Orleans (Fed.-Sta.-Mun.).....	4. 50 d.	.45 h.	.70 h.	.55 h.	1. 00 d.
Shreveport (Fed.-Mun.).....	.80 h.	.80 h.	1. 00 h.	.75 h.	1. 00 d.
<b>Maine:</b>					
Portland (Fed.).....	.55 h.	.51 h.	.75 h.	\$0. 65- .70 h.	
<b>Maryland:</b>					
Baltimore (Fed.).....		.52- .75 h.	.75 h.	.62½ h.	1. 50 d.
<b>Massachusetts:</b>					
Boston (Fed.).....	.68 h.	.72- .80 h.	.75 h.	.72- .75 h.	6. 00- 8. 00 w.
Boston (Sta.).....	.65 h.	.73 h.	.60 h.	.50- .75 h.	.25 h.
Springfield (Fed.-Sta.).....	.50 h.	.70 h.		.65 h.	1 10. 00 w.
Worcester (Sta.).....				.42 h.	.30 h.
<b>Michigan:</b>					
Battle Creek (Sta.)..				.60 h.	
Bay City (Sta.).....				.55- .70 h.	2. 00- 2. 50 d.
Detroit (Fed.).....	.60 h.			.60 h.	
Detroit (Sta.).....	.50 h.	.65 h.	.75 h.	.65 h.	2. 25 d.
Flint (Sta.).....					.30 h.
Grand Rapids (Sta.)..	.50 h.		.70 h.	.50 h.	.25 h.
Jackson (Sta.).....	\$0. 45- .75 h.	.45- .75 h.	.75 h.	.55 h.	.30 h.
Kalamazoo (Sta.).....				.60 h.	.25 h.
Lansing (Sta.).....	.60 h.		.70 h.	.55 h.	1 .25 h.
Muskegon (Sta.).....				.55 h.	.35 h.
Port Huron (Fed.)....	.55 h.	.50 h.	.80 h.	.55 h.	.20 h.
Saginaw (Sta.).....					
<b>Minnesota:</b>					
Duluth (Fed.-Sta.)..			.85 h.	.65 h.	2. 00 d.
Minneapolis (Fed.)..	.56 h.	.54 h.	.70 h.	.55 h.	2. 10 d.
St. Paul (Fed.-Sta.-Mun.).....				.55- .60 h.	.25 h.
<b>Mississippi:</b>					
Gulfport (Fed.).....				.50- .65 h.	
Meridian (Fed.).....	4. 00 d.	.68 h.	.60 h.	.55 h.	2. 00 d.
<b>Missouri:</b>					
Hannibal (Fed.-Sta.)..	.57 h.	.57 h.	.80- .90 h.	.65 h.	2. 00- 3. 00 d.
Kansas City (Fed.-Sta.).....	4. 00 d.	5. 80 d.	.80 h.	.55- .75 h.	.25- .35 h.
St. Joseph (Fed.-Sta.).....	4. 50- 5. 00 d.	.57½ h.	.75 h.	.60 h.	2. 00- 2. 50 d.
St. Louis (Fed.-Sta.)..				.62½ h.	2. 10 d.

<sup>1</sup> And board.<sup>2</sup> And board and room.



## LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Cooks, male.	Cooks, female.	Drivers, teams- ters, etc.	Dock laborers.	Farm hands.	Hod carriers.
\$15.00 w.	\$9.00 w.	\$3.00 d.		\$40.00-\$45.00 m.	
\$12.00-15.00 w.	<sup>1</sup> 20.00 m. \$10.00-12.00 w.	15.00 w. \$35.00-40.00 m.		45.00-60.00 m.	\$0.47 <sup>1</sup> / <sub>2</sub> -\$0.50 h.
18.00-25.00 w.	10.00 w.	3.50 d.	\$6.00 d.	50.00-75.00 m.	.42 <sup>1</sup> / <sub>2</sub> h.
10.00-25.00 w.	7.00-8.00 w.	3.00-3.25 d.		40.00-50.00 m.	.55 h.
		2.00-3.00 d.		2.00-3.00 d.	
	8.00 w.	.27 <sup>1</sup> / <sub>2</sub> h.		35.00 m.	
16.00 w.	10.00 w.	18.00 w.		35.00 m.	
		3.00 d.		35.00-40.00 m.	
90.00 m.	75.00 m.	21.00 w.		55.00 m.	
				60.00 m.	
20.00 w.	12.00 w.	22.00 w.		60.00 m.	
18.00 w.	12.00 w.	3.25 d.		60.00 m.	.50 h.
<sup>2</sup> 65.00 m.	<sup>2</sup> 35.00 m.	75.00 m.		60.00 m.	
85.00 m.	30.00 m.	.35 h.		45.00 m.	
90.00 m.	65.00 m.	65.00 m.		65.00 m.	.50 h.
20.00 w.	15.00 w.			65.00 m.	
				40.00 m.	
<sup>2</sup> 25.00 m.	<sup>2</sup> 5.00 w.	.35 h.		45.00 m.	
60.00-90.00 m.	25.00-40.00 m.	.30 h.		35.00 m.	
25.00 w.	18.00 w.	3.00 d.		40.00-65.00 m.	.40 h.
				40.00-50.00 m.	.50 h.
	<sup>1</sup> 5.00-6.00 w.	12.00 w.			
		.30 h.		1.50 d.	
<sup>2</sup> 60.00 m.	<sup>2</sup> 25.00 m.	2.00 d.	.30 h.	25.00 m.	2.00 d.
7.00-20.00 w.	3.00-10.00 w.	2.50 d.		2.00 d.	.30 h.
			.40 h.		
	10.00 w.	.40 h.		<sup>4</sup> 3.00 d.	
90.00 m.	7.00-10.00 w.	19.00-24.00 w.	\$0.50-.75 h.	40.00 m.	.50 h.
<sup>1</sup> 20.00 w.	18.00-20.00 w.	18.00-20.00 w.	.40-.42 h.	45.00-50.00 m.	.45 h.
<sup>1</sup> 20.00 w.	<sup>1</sup> 8.00-12.00 w.	18.00-20.00 w.	<sup>2</sup> 35.00-40.00 m.		
<sup>1</sup> 15.00 w.		18.00 w.		<sup>2</sup> 40.00-45.00 m.	
15.00 w.	8.00-10.00 w.	21.00 w.		40.00 m.	
	<sup>1</sup> 7.00-12.00 w.			35.00-40.00 m.	
90.00 m.	8.00-12.00 w.	3.00 d.		40.00-45.00 m.	
		4.00 d.	4.00 d.	45.00 m.	.50 h.
		.30 h.		35.00-45.00 m.	
12.00 w.	10.00 w.	3.00 d.		35.00-40.00 m.	
60.00-80.00 m.	50.00-75.00 m.	18.00 w.	.31 h.	40.00-50.00 m.	.33-.40 h.
15.00-18.00 w.	15.00 w.	20.00 w.		40.00-45.00 m.	
<sup>1</sup> 100.00 m.	<sup>1</sup> 72.00 m.	3.50 d.		<sup>1</sup> 50.00 m.	.45 h.
				35.00 m.	
<sup>2</sup> 50.00 m.	<sup>2</sup> 30.00 m.	3.25 d.	.70 h.	50.00 m.	.32 <sup>1</sup> / <sub>2</sub> h.
		18.00 w.		3.00 d.	
75.00-100.00 m.	35.00-65.00 m.	3.50 d.	.60 h.	50.00 m.	
100.00 m.	60.00 m.	18.00 w.	.40 h.	50.00 m.	.40 h.
	30.00-50.00 m.	2.25 d.		50.00-60.00 m.	.40-.45 h.
50.00 m.			.30 h.	20.00 m.	
85.00 m.	20.00-45.00 m.	2.50 d.	.30 h.	15.00-35.00 m.	.30 h.
80.00 m.	<sup>1</sup> 10.00 w.	.30-.40 h.		40.00 m.	.35 h.
18.00 w.	7.00-12.00 w.	15.00-20.00 w.		35.00-50.00 m.	.45-.50 h.
15.00-20.00 w.	8.00-12.00 w.	18.00 w.		50.00-75.00 m.	.50 h.
66.00 m.				<sup>2</sup> 35.00 m.	

<sup>1</sup> And board, room, and laundry.<sup>4</sup> Female.<sup>8</sup> 8 hours.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operators, male.	Laundry operators, female.
Illinois—Concluded.					
Peoria (Sta.).....	\$6.00-\$8.00 w.	.....	\$0.30-\$0.40 h.	.....	\$2.10 d.
Quincy (Fed.).....	5.00 w.	.....	3.00 d.	.....	.....
Rockford (Fed.-Sta.).....	6.00 w.	\$0.65-\$0.75 h.	.45- .50 h.	\$12.00-\$18.00 w.	\$3.00-10.00 w.
Rock Island-Moline (Fed.-Sta.).....	7.00 w.	.67½ h.	3.50- 4.00 d.	17.25 w.	9.00 w.
Springfield (Sta.)....	25.00-40.00 m.	.55 h.	.30- .50 h.	2.00- 2.50 d.	8.00-12.00 w.
Indiana:					
Evansville (Sta.).....	.....	.....	2.50- 3.00 d.	.....	.....
Indianapolis (Fed.).....	7.00 w.	.....	.40 h.	.....	7.00 w.
South Bend (Fed.-Sta.).....	5.00 w.	.....	.30 h.	.....	.....
Terre Haute (Sta.)....	.....	.....	.30- .35 h.	.....	.....
Iowa:					
Cedar Rapids (Fed.-Sta.).....	6.00 w.	.....	.37½ h.	19.00 w.	12.00 w.
Council Bluffs (Fed.-Sta.).....	.....	.....	.45 h.	.....	.....
Davenport (Fed.-Sta.).....	6.00- 7.00 w.	.....	.35- .40 h.	.....	9.00-10.00 w.
Des Moines (Fed.-Sta.-Co.-Mun.).....	7.00 w.	.....	.40 h.	.....	8.00 w.
Mason City (Fed.-Sta.).....	.....	.....	.35- .40 h.	.....	.....
Ottumwa (Fed.-Sta.).....	5.00 w.	.....	.40 h.	.....	.14 h.
Sioux City (Fed.-Sta.).....	6.00 w.	.....	.40 h.	.....	.....
Waterloo (Fed.-Sta.).....	6.00 w.	.....	3.00 d.	.....	.....
Kansas:					
Hutchinson (Fed.)....	7.00 w.	.....	.35 h.	.....	.....
Parsons (Fed.).....	.....	.....	.37½ h.	.....	.....
Topeka (Fed.-Sta.)....	5.00- 8.00 w.	.65 h.	.30 h.	15.00 w.	5.00- 9.00 w.
Wichita (Fed.).....	5.00 w.	.65 h.	.40 h.	21.00 w.	12.00 w.
Kentucky:					
Louisville (Sta.).....	.....	.....	.30 h.	.....	.....
Louisiana:					
Alexandria (Fed.)....	5.00 w.	.65 h.	.25 h.	.....	.25 h.
New Orleans (Fed.-Sta.-Mun.).....	<sup>1</sup> 20.00 m.	.65 h.	.30 h.	45.00 m.	35.00 m.
Shreveport (Fed.-Mun.).....	2.00- 6.00 w.	6.50 d.	.30 h.	20.00 w.	7.00 w.
Maine:					
Portland (Fed.).....	.....	.....	.40- .46 h.	.....	.....
Maryland:					
Baltimore (Fed.).....	8.00 w.	.....	.40 h.	.....	.....
Massachusetts:					
Boston (Fed.).....	75.00 m.	.75 h.	.40 h.	18.00 w.	10.00-14.00 w.
Boston (Sta.).....	<sup>1</sup> 40.00 m.	.65 h.	.40- .45 h.	18.00 w.	8.50 w.
Springfield (Fed.-Sta.).....	<sup>1</sup> 5.00- 7.00 w.	.50 h.	.35- .47½ h.	18.00-22.00 w.	.....
Worcester (Sta.).....	<sup>1</sup> 7.00- 8.00 w.	.....	.35 h.	.....	<sup>1</sup> 30.00 m.
Michigan:					
Battle Creek (Sta.)....	3.00 w.	.45 h.	.40 h.	20.00 w.	10.00 w.
Bay City (Sta.).....	4.00- 7.00 w.	.35- .43 h.	.30- .45 h.	.....	7.00 w.
Detroit (Fed.).....	8.00 w.	.....	.40 h.	.....	.....
Detroit (Sta.).....	.....	.....	.45 h.	.....	.....
Flint (Sta.).....	7.00 w.	.....	.35 h.	.....	.....
Grand Rapids (Sta.)....	4.00- 8.00 w.	.....	.35 h.	.....	10.00 w.
Jackson (Sta.).....	5.00- 7.00 w.	50.00-55.00 m.	.35- .40 h.	18.00-25.00 w.	9.00-12.00 w.
Kalamazoo (Sta.).....	.....	.....	.35- .40 h.	15.00 w.	10.00 w.
Lansing (Sta.).....	<sup>2</sup> 10.00 w.	.70 h.	.40 h.	25.00 w.	18.00 w.
Muskegon (Sta.).....	.....	.....	.35 h.	.....	.....
Port Huron (Fed.)....	<sup>3</sup> 7.00 w.	.40- .55 h.	.32½- .40 h.	.....	.....
Saginaw (Sta.).....	.....	.....	3.50 d.	.....	.....
Minnesota:					
Duluth (Fed.-Sta.)....	20.00-40.00 m.	.....	4.00 d.	.....	.....
Minneapolis (Fed.)....	35.00 m.	.50 h.	.35 h.	18.00 w.	12.00 w.
St. Paul (Fed.-Sta.-Mun.).....	20.00-25.00 m.	.....	.30- .35 h.	.....	6.00- 8.00 w.
Mississippi:					
Gulfport (Fed.).....	.....	.....	.25 h.	.....	.....
Meridian (Fed.).....	10.00-30.00 m.	5.00 d.	.30 h.	2.00 d.	9.00 w.
Missouri:					
Hannibal (Fed.-Sta.)....	<sup>2</sup> 10.00 w.	85.00 m.	.30 h.	.....	.....
Kansas City (Fed.-Sta.).....	<sup>1</sup> 40.00 m.	.72 h.	.35- .47 h.	16.00 w.	7.00-12.00 w.
St. Joseph (Fed.-Sta.).....	6.00-12.00 w.	.70 h.	.40- .45 h.	18.00 w.	10.00 w.
St. Louis (Fed.-Sta.)....	.....	.....	.40 h.	.....	35.00 m.

<sup>1</sup> And board and room.

## LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$0.62 h. 30.00 w. \$0.35- .50 h.	\$5.00 d. \$0.35- .50 h.	\$2.50 d. \$0.57½- .60 h.			
4.00- 6.00 d. .40- .70 h.	4.00- 8.00 d. .40- .60 h.	.65 h. .55 h.	.75 h. .90 h.	5.45 d. .85 h.	\$8.00 w. 10.00 w. \$5.00- 10.00 w.
.50 h. .45 h.					8.00 w.
.57½ h.	5.00 d.				9.00 w
.60 h.	.50 h.	.65 h.			7.00- 10.00 w.
.52 h.	7.00 d.	.55 h.	.87 h.	.78½ h.	2.50 d.
.37½ h.					8.00- 9.00 w.
.50 h.					5.00 w.
.58 h. .45 h.	.45 h.	.35 h.			
.50 h. .68 h.	.55 h. .68 h.	.55 h. .80 h.	.75 h. .82½ h.	.62½ h. .72½ h.	6.00- 10.00 w. 10.00 w.
					7.00 w.
.60 h.		.60 h.		.75 h.	.25 h.
4.20 d.	.45 h.	.50 h.	.40 h.	.70 h.	6.00 w.
.75 h.	.65 h.	.70 h.	1.00 h.	6.50 d.	6.00- 12.00 w.
.50- .79½ h.					
.52- .72½ h.		.60 h.	.75 h.		12.00 w.
.50- .74 h.	5.85 d.	.60 - .70 h.	.75 h.	\$0.60- .72 h.	10.00 w.
.60- .70 h.	.55- .75 h.	.50 - .75 h.	.60 h.	.50- .75 h.	8.00- 15.00 w.
.60- .70 h.	5.00 d.				10.00 w.
.50- .55 h.	4.25- 5.25 d.	.37½ h.			8.00- 10.00 w.
.35- .40 h.		.45 h.			6.00 w.
.50- .75 h.	.57 h.			.55- .60 h.	7.00- 10.00 w.
.55 h.	.60 h.	.50 h.	.70 h.	.70 h.	10.00- 12.00 w. 15.00 w.
.50 h.		.40 h.			10.00 w.
.45- .75 h.	.55 h.	.55 h.	\$0.50- .60 h.	.60- .75 h.	6.00- 12.00 w.
.50 h.		.45 h.		.60 h.	
.60 h.	.65 h.	.60 h.	.70 h.	.75 h.	20.00 w.
.45 h.					
.65 h.	.60 h.	.55 h.	.60- .70 h.	.55 h.	15.00 w.
.53- .72½ h.	.60 h.	.65 h. .50 h.	.70 h.	.75 h.	8.00 w.
		.55 - .60 h.			
.68 h.	4.50 d.	.55 h.	.55 h.	.72 h.	30.00- 70.00 m.
.57 h.	.72 h.	4.80 d.		.65 h.	6.00- 12.00 w.
5.80 d.	5.80 d.	.50 - .65 h.	7.00 d.	.75 h.	7.00- 18.00 w.
.68- .72 h.		.60 h.	.75 h.	.85 h.	50.00- 150.00 m.
.70 h.	.72 h.	5.00 d.			8.00 w.

\* For 9 hours.

\* And board.



## RATE OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	Seamstresses.	Sewing-machine operators, male.	Sewing-machine operators, female.	Stenographers, male.	Stenographers, female.
<b>Illinois—Concluded.</b>					
Peoria (Sta.)					
Quincy (Fed.)					\$40.00 m.
Rockford (Fed.-Sta.)	\$2.00 d.				75.00 m.
Rock Island-Moline (Fed.-Sta.)	2.00 d.	\$125.00 m.	\$100.00 m.	\$80.00-100.00 m.	75.00 m.
Springfield (Sta.)	1.50 d.		1.00 d.	50.00-100.00 m.	60.00 m.
<b>Indiana:</b>					
Evansville (Sta.)					
Indianapolis (Fed.)	2.00 d.		\$18.00-22.00 w.		18.00 w.
South Bend (Fed.-Sta.)					
Terre Haute (Sta.)					
<b>Iowa:</b>					
Cedar Rapids (Fed.-Sta.)				75.00 m.	65.00 m.
Council Bluffs (Fed.-Sta.)					
Davenport (Fed.-Sta.)					\$12.00- 18.00 w.
Des Moines (Fed.-Sta.-Co.-Mun.)	2.50 d.			80.00 m.	75.00 m.
Mason City (Fed.-Sta.)					
Ottumwa (Fed.-Sta.)				85.00 m.	50.00 m.
Sioux City (Fed.-Sta.)				75.00 m.	75.00 m.
Waterloo (Fed.-Sta.)	2.00 d.			20.00 w.	15.00 w.
<b>Kansas:</b>					
Dodge City (Fed.)					
Hutchinson (Fed.)					
Parsons (Fed.)					
Topeka (Fed.-Sta.)	10.00 w.			70.00 m.	60.00 m.
Wichita (Fed.)	3.00 d.		10.00 w.	77.50 m.	15.00 w.
<b>Kentucky:</b>					
Louisville (Sta.)	7.00 w.				35.00- 50.00 m.
<b>Louisiana:</b>					
Alexandria (Fed.)				125.00 m.	75.00-125.00 m.
New Orleans (Fed.-Sta.-Mun.)	1.00 d.	75.00 m.	60.00 m.	100.00 m.	90.00 m.
Shreveport (Fed.-Mun.)	1.50 d.			100.00 m.	75.00 m.
<b>Maine:</b>					
Portland (Fed.)			12.00-28.00 w.		
<b>Maryland:</b>					
Baltimore (Fed.)			12.00 w.	20.00- 30.00 w.	20.00 w.
<b>Massachusetts:</b>					
Boston (Fed.)	10.00 w.		10.00-25.00 w.	15.00- 20.00 w.	10.00- 25.00 w.
Boston (Sta.)	\$1.50- 3.00 d.		10.00-40.00 w.	18.00 w.	10.00- 20.00 w.
Springfield (Fed.-Sta.)	1.50 d.			25.00 w.	17.00 w.
Worcester (Sta.)			20.00 w.		
<b>Michigan:</b>					
Battle Creek (Sta.)					12.00- 15.00 w.
Bay City (Sta.)					
Detroit (Fed.)	30.00-40.00 m.		9.00-15.00 w.		70.00-100.00 m.
Detroit (Sta.)	2.50 d.	2.50 d.			18.00 w.
Flint (Sta.)					
Grand Rapids (Sta.)					
Jackson (Sta.)	8.00-15.00 w.		8.00-15.00 w.		
Kalamazoo (Sta.)					
Lansing (Sta.)	2.50 d.			120.00 m.	100.00 m.
Muskegon (Sta.)					12.00 w.
Port Huron (Fed.)					15.00- 25.00 w.
<b>Minnesota:</b>					
Duluth (Fed.-Sta.)	10.00-12.00 w.				
Minneapolis (Fed.)	2.50 d.		15.00 w.	90.00 m.	75.00 m.
St. Paul (Fed.-Sta.-Mun.)	1.75 d.	\$6.00- 8.00 w.			
<b>Mississippi:</b>					
Meridian (Fed.)	1.50 d.	12.50 w.	9.00 w.	125.00 m.	40.00-100.00 m.
<b>Missouri:</b>					
Hannibal (Fed.-Sta.)	4.00 d.			75.00-100.00 m.	45.00-75.00 m.
Kansas City (Fed.-Sta.)		20.00 w.	18.00 w.	25.00 w.	65.00-80.00 m.
St. Joseph (Fed.-Sta.)	.20- .25 h.	25.00 w.	15.00 w.	15.00- 25.00 w.	12.00-18.00 w.
St. Louis (Fed.-Sta.)	15.00 w.				50.00 m.

¹ And board and room.

² And board.

LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
		<sup>1</sup> \$50.00 m.	\$4.00 w. \$1.50- 2.00 d.	\$0.25- \$0.45 h.	\$0.20- \$0.25 h.
\$0.65- \$0.73 h. .85 h.	\$12.00 w. 8.00 w.	\$12.00- 14.00 w. 8.00- 15.00 w.	9.00- 12.50 w. 5.00- 10.00 w.	3.00- 4.00 d. .40 h.	.25 h.
	10.00 w.	8.00 w.	7.00 w.	2.50 d. .30 h.	1.50 d. 1.50 d.
				.35 h. .35 h.	.30 h.
		12.00 w.	10.00 w.	.40 h.	
		20.00 w.	12.00 w.	.35- .40 h.	2.00 d.
.75 h.	10.00 w.	12.00 w.	9.00 w.	.35 h.	.35 h.
		15.00 w.	7.00 w.	.35 h.	1.00 d.
		15.00 w. 13.00 w.	12.00 w. 7.00 w.	4.00 d. .40 h.	3.00 d. .30 h.
			7.00 w.	.40 h.	
		<sup>1</sup> 30.00 m.	<sup>1</sup> 25.00 m.		
	22.50 m. 9.00 w.	10.00 w. 10.00 w.	4.00- 7.00 w. 10.00 w.	.30 h. .35 h.	.25 h. .25 h.
			<sup>2</sup> 5.50 w.		
		2.00 d.			
.65 h.	45.00 m.	<sup>1</sup> 1.00 d.	<sup>1</sup> 1.00 d.	1.00 d.	1.00 d.
.80 h.	\$5.00- 8.00 w.	<sup>2</sup> 16.00 w.	<sup>3</sup> 10.00 w.	2.00 d.	1.50 d.
				.22- .45 h.	.17- .32 h.
.75 h.	12.00 w.	75.00 m.	25.00 m.		30.00 m.
.60- .70 h. .45- .70 h.	12.00 w. 12.00-15.00 w.	14.00 w. <sup>2</sup> 15.00 w.	8.00-12.00 w. <sup>2</sup> 9.00-10.00 w.	3.00 d. .35- .40 h.	1.50- 2.00 d. .25 h.
.75 h.		<sup>2</sup> 14.00-15.00 w. <sup>2</sup> 7.00 w.	<sup>2</sup> 6.00- 7.00 w. <sup>1</sup> 4.00 w.	.35 h. .35 h.	<sup>1</sup> .25 h. .30 h.
		8.00 w.	7.00 w.	.40 h.	.30 h.
	55.00-70.00 m.		6.00- 9.00 w. 8.00-10.00 w.	.35- .50 h. .40 h.	.25- .30 h. 2.00 d.
.65 h.				.40 h.	.30 h.
			8.00 w.	.35- .50 h.	.25 h.
6.00- 7.00 d.	8.00-10.00 w.	9.00 w.	6.00- 7.00 w.	.35- .50 h.	.25 h.
		12.00-15.00 w.	7.00- 8.00 w.	.35- .40 h.	.35 h.
	18.00 w.	20.00 w.	8.00-10.00 w. 10.00 w.	.35- .40 h.	.25 h.
.70 h.		<sup>1</sup> 6.00 w.	<sup>1</sup> 6.00 w.	.30 h.	.25 h.
				.30 h.	.20 h.
.65 h.	15.00 w.	75.00 m. 18.00 w.	25.00-35.00 m. 8.00 w.	.40 h. .35 h.	.30 h. .25 h.
			6.00- 8.00 w.		.25 h.
.72 h.	7.00- 9.00 w.	50.00 m.	40.00 m.	.20 h.	.15 h.
.4.20 d.	<sup>4</sup> 8.00 w.				
.75 h.	60.00-75.00 m.	<sup>1</sup> 14.00 w.	<sup>3</sup> 7.00- 10.00 w.	.35- .45 h.	.25 h.
.65 h.	10.00 w.	15.00- 18.00 w. <sup>1</sup> 35.00 m.	5.00- 12.00 w. 10.00 w.	2.50- 3.00 d. .30 h.	1.00- 1.50 d. .00 w.

<sup>2</sup> And car fare.<sup>4</sup> Inexperienced, \$5.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	Blacksmiths.	Boiler makers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
Montana:					
Butte (Mun.).....					
Helena (Fed.).....	\$6.00 d.	\$5.50 d.	\$8.00 d.	\$6.00 d.	\$3.00 d.
Missoula (Fed.).....					
Nebraska:					
Lincoln (Fed.-Sta.)..	.57½ h.	.57½ h.	.80 h.	.60 h.	.35 h.
Omaha (Fed.-Sta.-Co.-Mun.).....	.52½ h.	.60 h.	.80 h.	.60 h.	.30 h.
New Jersey:					
Camden (Fed.-Sta.-Mun.).....	\$0.60- .70 h.	.80 h.	.80 h.	\$0.62½- .72½ h.	
Jersey City (Fed.-Sta.-Mun.).....	.60 h.	1.00 h.		.55 h.	2.00 d.
Newark (Fed.-Sta.-Mun.).....	.45- .55 h.		\$0.52- .80 h.	.40 - .72 h.	2.00 d.
Orange (Fed.-Sta.-Mun.).....				.55 h.	.25 h.
New Mexico:					
Albuquerque (Fed.).....		5.77½ d.		.75 h.	
Deming (Fed.).....				.62½ h.	
Roswell (Fed.).....				.50 h.	.25 h.
Nevada:					
Reno (Fed.).....				.60 - .75 h.	.35 h.
New York:					
Buffalo (Fed.-Sta.)..	.50- .60 h.	\$0.54- .60 h.	.55- .65 h.	.60 - .70 h.	\$0.22½- .24 h.
New York City (Fed.-Sta.).....	.75 h.	.70- .80 h.	.75 h.	.62½ h.	12.00 w.
New York City (Mun.).....				.62½ h.	
North Carolina:					
Charlotte (Fed.).....	6.00 d.		.75 h.	5.00 d.	
Raleigh (Fed.).....	.55- .70 h.	.55- .70 h.	.45- .55 h.	.35 - .50 h.	5.00 - 10.00 w.
North Dakota:					
Bismarck (Fed.).....					
Fargo (Fed.).....	.50 h.			.50 h.	
Ohio:					
Akron (Fed.-Sta.-Mun.).....	.50 h.	.60 h.	.75 h.	.65 h.	.35 h.
Canton (Fed.-Sta.-Mun.).....	.50 h.	.50 h.	.85 h.	.60 - .70 h.	.25 h.
Chillicothe (Fed.-Sta.-Mun.).....	.50 h.	.50 h.	.90 h.	.65 h.	2.00 d.
Cincinnati (Fed.-Sta.-Mun.).....	.60 h.	.55 h.	.90 h.	.65 h.	1.75 d.
Cleveland (Fed.-Sta.-Mun.).....	.55- .65 h.	.55- .65 h.	.75- .90 h.	.60 - .70 h.	2.00 d.
Columbus (Fed.-Sta.-Mun.).....	.50 h.		.87½ h.	.65 h.	1.75 d.
Dayton (Fed.-Sta.-Mun.).....	.50 h.		.65 h.	.60 - .70 h.	40.00 m.
Hamilton (Fed.-Sta.-Mun.).....					1.50 d.
Lima (Fed.-Sta.-Mun.).....	.50 h.	.50 h.	.75 h.	.45 h.	.25 h.
Mansfield (Fed.-Sta.-Mun.).....	.50 h.		.65 h.	.60 h.	.25 h.
Marietta (Fed.-Sta.-Mun.).....				.50 h.	
Marion (Fed.-Sta.-Mun.).....	.45 h.	.45 h.	.75 h.	.45 h.	.20 h.
Portsmouth (Fed.-Sta.-Mun.).....	.50 h.	.68 h.	.80 h.	.65 h.	.25 h.
Sandusky (Fed.-Sta.-Mun.).....	4.00 d.			.60 h.	.25 h.
Springfield (Fed.-Sta.-Mun.).....	.55 h.	.58½ h.	.75 h.	.50 - .65 h.	1.40 d.
Steubenville (Fed.-Sta.-Mun.).....	.65 h.	.65 h.	.80 h.	.80 h.	2.00 d.
Tiffin (Fed.-Sta.-Mun.).....	.40 h.		.65 h.	.65 h.	1.00 d.
Toledo (Fed.-Sta.-Mun.).....	.50 h.	.55 h.	.83½ h.	.60 h.	.25 h.
Washington C. H. (Fed.-Sta.-Mun.).....					
Youngstown (Fed.-Sta.-Mun.).....	.75 h.	.70 h.	.90 h.	.75 h.	2.35 d.
Zanesville (Fed.-Sta.-Mun.).....	.50 h.	.50 h.	.75 h.	.52½ h.	.20 h.

<sup>1</sup> Hay hands, \$3.50 and \$4 d.



## LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Cooks, male.	Cooks, female.	Drivers, teams- ters, etc.	Dock laborers.	Farm hands.	Hod carriers.
\$21.50 w. 26.50 w. 150.00 m.	\$17.50 w. 22.00 w. 50.00 m.	\$4.00 d. 4.00 d.		\$3.50 d. \$50.00-65.00 m.	\$5.00 d.
75.00 m.	75.00 m.	18.00 w.		60.00 m.	.50 h.
30.00 w.	12.00 w.	22.00 w.	\$0.35 h.	.45 h.	.50 h.
<sup>2</sup> 45.00 m.	10.00 w.	<sup>2</sup> 90.00 m.	40.00 w.	20.00-60.00 m.	.62½ h.
	25.00 m.	18.00 w.	.40 h.		
\$15.00-25.00 w.	\$10.00-22.00 w.	\$18.00-25.00 w.		35.00-60.00 m.	
22.00 w.	35.00 m.	14.00 w.	.37 h.	30.00 m.	
60.00 m. 60.00 m.	30.00 m.	60.00 m. 2.00 d.		2.60 d.	
3.00 d.	60.00 m.	60.00 m.		3.00-3.50 d.	
40.00-75.00 m.	30.00-45.00 m.	18.00-21.00 w.	\$0.40- .50 h.	40.00-60.00 m.	\$0.40- .50 h.
100.00 m.	40.00 m.	25.00 w.	.30- .35 h.	45.00 m.	.50 h.
		18.00 w.		35.00 m.	
10.00-15.00 w.	4.00 w. 3.00-5.00 w.	.25 h. 8.00-12.00 w.		1.50-2.00 d.	.25- .30 h.
75.00 m.	60.00 m.	3.50 d.		3.50 d. 4.00 d.	
20.00 w.	15.00 w.	21.00 w.		40.00 m.	.53 h.
18.00 w.	8.00 w.	21.00 w.	.30 h.	30.00-40.00 m.	.53 h.
25.00 w.	15.00 w.	80.00 m.		1.50 d.	.60 h.
18.00 w.	12.00 w.	.37½ h.		40.00 m.	.50 h.
75.00-125.00 m.	10.00-15.00 w.	18.00-22.00 w.	.55 h.	<sup>2</sup> 35.00-50.00 m.	.45- .50 h.
20.00 w.	10.00 w.	3.50 d.		35.00-40.00 m.	.50 h.
18.00-40.00 w.	15.00 w.	3.00-4.00 d.		30.00-45.00 m.	
		2.75 d.		35.00 m.	
22.00 w.	12.00 w.	3.00 d.	.32½ h.	35.00 m.	.45 h.
.30 h.	.25 h.	.35 h.		2.50 d.	.40 h.
		3.00 d.		30.00 m.	
75.00 m.	50.00 m.	.30 h.		.40 h.	.40 h.
<sup>2</sup> 12.00 w.	<sup>2</sup> 12.00 w.	.35 h.	.40 h.	<sup>2</sup> 50.00 m.	.40 h.
25.00 w.		3.50 d.		50.00 m.	
20.00 w.	7.00-10.00 w.	.35 h.		35.00-45.00 m.	.57½ h.
75.00 m.	15.00 w.	23.00 w.		45.00 m.	.57½ h.
18.00 w.	12.00 w.	3.00 d.		45.00 m.	.40 h.
<sup>2</sup> 18.00 w.	15.00 w.	18.00 w.	.40 h.	<sup>2</sup> 35.00-60.00 m.	.45 h.
				40.00 m.	
90.00 m.	70.00 m.	3.75 d.		40.00 m.	
.35 h.	.25 h.	15.00 w.		35.00-50.00 m.	

<sup>2</sup> And board and room.<sup>2</sup> And board.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operators, male.	Laundry operators, female.
<b>Montana:</b>					
Butte (Mun.).....	\$35.00-\$40.00 m.	.....	\$4.50 d.	.....	.....
Helena (Fed.).....	35.00 m.	\$5.25 d.	4.00 d.	\$24.00 w.	\$19.00 w.
Missoula (Fed.).....	.....	.....	4.00 d.	.....	.....
<b>Nebraska:</b>					
Lincoln (Fed.-Sta.).....	6.00 w.	.62½ h.	.40 h.	.....	7.00 w.
Omaha (Fed.-Sta.-Co.-Mun.).....	7.00 w.	.50 h.	.40 h.	18.00 w.	12.00 w.
<b>New Jersey:</b>					
Camden (Fed.-Sta.-Mun.).....	4.00- 7.00 w.	.70 h.	\$0.35- .46 h.	.....	.....
Jersey City (Fed.-Sta.-Mun.).....	25.00 m.	.....	.40- .45 h.	.....	.....
Newark (Fed.-Sta.-Mun.).....	.....	.....	.35- .50 h.	.....	.....
Orange (Fed.-Sta.).....	30.00 m.	.....	.37 h.	.....	.....
<b>New Mexico:</b>					
Albuquerque (Fed.).....	.....	.....	.25 h.	.....	.....
Deming (Fed.).....	.....	175.00 m.	50.00-60.00 m.	.....	.....
Roswell (Fed.).....	25.00 m.	125.00 m.	1.50 d.	75.00 m.	.30 h.
<b>Nevada:</b>					
Reno (Fed.).....	40.00 m.	.....	.40 h.	.....	.....
<b>New York:</b>					
Buffalo (Fed.-Sta.).....	6.00-10.00 w.	\$0.37½- .48 h.	.35- .45 h.	.27- .35 h.	\$0.16- .20 h.
New York City (Fed.-Sta.).....	35.00 m.	.52 h.	.40 h.	18.00 w.	2.50 d.
New York City (Mun.).....	.....	.....	.40 h.	.....	.....
<b>North Carolina:</b>					
Charlotte (Fed.).....	.....	.70 h.	.30 h.	.....	.....
Raleigh (Fed.).....	3.00- 5.00 w.	.45 h.	.30 h.	15.00 w.	1.00- 1.50 d.
<b>North Dakota:</b>					
Bismarck (Fed.).....	.....	.....	3.50 d.	.....	.....
<b>Ohio:</b>					
Akron (Fed.-Sta.-Mun.).....	9.00 w.	.60 h.	.40 h.	20.00 w.	9.00 w.
Canton (Fed.-Sta.-Mun.).....	6.00 w.	.50 h.	.35- .45 h.	18.00 w.	9.00 w.
Chillicothe (Fed.-Sta.-Mun.).....	.....	.62½ h.	.....	.....	.....
Cincinnati (Fed.-Sta.-Mun.).....	.....	.....	.37½ h.	18.00 w.	12.00 w.
Cleveland (Fed.-Sta.-Mun.).....	35.00-45.00 m.	.55- .60 h.	.40- .55 h.	\$15.00-18.00 w.	9.00 w.
Columbus (Fed.-Sta.-Mun.).....	7.00 w.	.....	.35- .37½ h.	.....	.....
Dayton (Fed.-Sta.-Mun.).....	30.00 m.	.....	.35- .45 h.	.....	.....
Hamilton (Fed.-Sta.-Mun.).....	5.00 w.	.....	.37½ h.	.....	.....
Lima (Fed.-Sta.-Mun.).....	10.00 w.	.40 h.	.35- .40 h.	.35 h.	.25 h.
Mansfield (Fed.-Sta.-Mun.).....	6.00 w.	.....	.40 h.	.....	.....
Marietta (Fed.-Sta.-Mun.).....	4.00- 6.00 w.	.....	.25- .35 h.	.....	1.25 d.
Marion (Fed.-Sta.-Mun.).....	6.00 w.	.50 h.	.35 h.	.....	.....
Portsmouth (Fed.-Sta.-Mun.).....	6.00 w.	.....	.35 h.	.....	.....
Sandusky (Fed.-Sta.-Mun.).....	.....	.....	.35 h.	.....	.....
Springfield (Fed.-Sta.-Mun.).....	5.00- 7.00 w.	.55 h.	.35- .37½ h.	18.00 w.	1.00- 1.50 d.
Staubenville (Fed.-Sta.-Mun.).....	8.00 w.	.65 h.	.40 h.	.....	.....
Tiffin (Fed.-Sta.-Mun.).....	6.00 w.	125.00 m.	3.50 d.	.....	.....
Toledo (Fed.-Sta.-Mun.).....	5.00 w.	.68½ h.	.35- .40 h.	15.00 w.	9.00 w.
Washington C. H. (Fed.-Sta.-Mun.).....	.....	.....	.25 h.	.....	.....
Youngstown (Fed.-Sta.-Mun.).....	8.00 w.	.75 h.	.42 h.	50.00 m.	9.00 w.
Zanesville (Fed.-Sta.-Mun.).....	.....	.60 h.	.35 h.	15.00 w.	10.00 w.

<sup>1</sup> Auto workers.<sup>2</sup> And board and room.

LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$5.00 d.	\$6.00 d.	\$6.00 d.	\$8.00 d.	\$8.00 d.	\$60.00 m.
.62 h.		.50 h.	.75 h.	7.00 d.	10.00 w.
.60 h.	.60 h.	.62½ h.	.87½ h.	.75 h.	10.00 w.
\$0.60- .80 h.	5.00 d.	\$0.55- .65 h.	.70 h.	.62½ h.	
.60 h.				.40 h.	
.40- 1.00 h.		.62½ h.		\$0.45- .75 h.	9.50 w.
.50 h.					
5.77½ d.				1.00 h.	
³ 3.00 d.		.50 h.		.50 h.	60.00 m.
		.55 h.			
.55- .72 h.	\$0.45- .60 h.	.40- .45 h.	\$0.55- .65 h.	.52 h.	\$10.00- 20.00 w.
.70 h.	5.50 d.	.55 h.	.75 h.	.62½ h.	12.00 w.
.55 h.				4.00 d.	
.60- .68 h.	.50- .65 h.	.30- .40 h.	.40- .50 h.	.72½ h.	5.00- 10.00 w.
				.50- .60 h.	
.65 h.	5.00 d.	.55 h.	.60 h.	5.00 d.	10.00 w.
.50- .60 h.	.55 h.	.50- .60 h.	.70 h.	.70 h.	8.00 w.
.60 h.		.50 h.		.60 h.	8.00 w.
.40- .68 h.	.65 h.	.60 h.	.75 h.	.66 h.	9.00 w.
.60- .65 h.	\$5.50- 6.00 d.	.60- .70 h.	.70 h.	.70 h.	
		.50- .60 h.		.70 h.	
.50- .60 h.	6.00- 7.00 d.	.50- .55 h.		.75 h.	
.47 h.	30.00 w.				
.50- .60 h.	.50 h.	.45 h.	.65 h.	.60 h.	9.00 w.
.50 h.	.50 h.			.80 h.	
.35- .52½ h.					
.45 h.	.50 h.	.40 h.	.45 h.	.60 h.	10.00 w.
.68 h.		.50 h.	.65 h.	.75 h.	10.00 w.
.55 h.	.55 h.	.60 h.			
.40- .60 h.	4.50- 5.50 d.	.55 h.	.70 h.	.58½ h.	10.00- 20.00 w.
.67½ h.		.75 h.	.75 h.	.75 h.	9.00 w.
.45 h.	.50 h.	.40 h.	.50 h.	.50 h.	8.00 w.
.60 h.	.40- .52 h.	.50 h.	.70 h.	.68½ h.	9.00 w.
.70 h.	5.50 d.	.69 h.	.75 h.	.75 h.	10.00 w.
.40 h.	5.00-10.00 d.	.45 h.	.40 h.	.45 h.	.25 h.

³ For 9 hours.



## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	Seamstresses.	Sewing-machine operators, male.	Sewing-machine operators, female.	Stenographers, male.	Stenographers, female.
Montana:					
Butte (Mun.).....					
Helena (Fed.).....	\$3.00 d.				
Nebraska:					
Lincoln (Fed.-Sta.).....	2.00 d.	\$7.00 w.	\$7.00 w.		\$60.00 m.
Omaha (Fed.-Sta.-Co.-Mun.).....	12.00 w.	18.00 w.	12.00 w.	\$100.00 m.	85.00 m.
New Jersey:					
Camden (Fed.-Sta.-Mun.).....	7.00 w.			75.00 m.	\$6.00-18.75 w.
Jersey City (Fed.-Sta.).....				75.00 m.	40.00-75.00 m.
Newark (Fed.-Sta.-Mun.).....			\$7.00-14.00 w.	\$19.00-30.00 w.	40.00-87.75 m.
Orange (Fed.-Sta.-Mun.).....	2.50 d.				
New Mexico:					
Albuquerque (Fed.).....				125.00 m.	102.00 m.
Deming (Fed.).....			50.00 m.		
Roswell (Fed.).....	2.00 d.			75.00 m.	75.00 m.
Nevada:					
Reno (Fed.).....					
New York:					
Buffalo (Fed.-Sta.).....	\$9.00-18.00 w.	\$20.00-25.00 w.	15.00-18.00 w.	800-1,200 y.	600-1,020 y.
New York City (Fed.-Sta.).....		20.00 w.	12.00 w.	25.00 w.	18.00 w.
New York City (Mun.).....					
North Carolina:					
Raleigh (Fed.).....		15.00 w.	10.00-12.00 w.	60.00-125.00 m.	40.00-125.00 m.
North Dakota:					
Fargo (Fed.).....					75.00 m.
Ohio:					
Akron (Fed.-Sta.-Mun.).....	2.00 d.			80.00 m.	60.00 m.
Athens (Fed.-Sta.-Mun.).....					
Canton (Fed.-Sta.-Mun.).....	8.00 w.		8.00 w.	25.00 w.	15.00 w.
Chillicothe (Fed.-Sta.-Mun.).....	2.00 d.		10.00 w.	100.00 m.	70.00 m.
Cincinnati (Fed.-Sta.-Mun.).....	15.00 w.	21.00 w.	15.00 w.	100.00 m.	60.00 m.
Cleveland (Fed.-Sta.-Mun.).....			10.00-15.00 w.	125.00-150.00 m.	60.00-100.00 m.
Columbus (Fed.-Sta.-Mun.).....				75.00-100.00 m.	75.00 m.
Dayton (Fed.-Sta.-Mun.).....				15.00-40.00 w.	
Hamilton (Fed.-Sta.-Mun.).....					12.00 w.
Lima (Fed.-Sta.-Mun.).....	2.00 d.		8.00 w.	75.00 m.	12.00 w.
Mansfield (Fed.-Sta.-Mun.).....			.20 h.		50.00 m.
Marietta (Fed.-Sta.-Mun.).....					12.00 w.
Marion (Fed.-Sta.-Mun.).....				90.00 m.	75.00 m.
Portsmouth (Fed.-Sta.-Mun.).....	9.00 w.		12.00 w.	20.00 w.	15.00 w.
Sandusky (Fed.-Sta.-Mun.).....				80.00 m.	
Springfield (Fed.-Sta.-Mun.).....	1.50-2.00 d.			80.00-125.00 m.	10.00-18.00 w.
Stenabenville (Fed.-Sta.-Mun.).....				100.00 m.	70.00 m.
Tiffin (Fed.-Sta.-Mun.).....	2.00 d.		10.00 w.		60.00 m.
Toledo (Fed.-Sta.-Mun.).....			12.00 w.	100.00 m.	65.00 m.
Washington C. H. (Fed.-Sta.-Mun.).....					
Youngstown (Fed.-Sta.-Mun.).....	2.50 d.			100.00 m.	75.00 m.
Zanesville (Fed.-Sta.-Mun.).....	15.00 w.	20.00-30.00 w.	10.00-20.00 w.	20.00 w.	12.00 w.

1 And board.

LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
\$7.00 d.		\$4.00 d.	\$14.00 w. 3.00 d.	\$3.00 d.	\$2.00 d.
.65 h.	\$35.00 m.		8.00 w.	.40 h.	.35 h.
.72½ h.	50.00 m.	1 12.00 w.	1 12.00 w.	.40 h.	.30 h.
.75 h.		2 2.20 d.	\$26.00- 40.00 m.		
	\$15.00- 22.00 w.		8.00- 12.00 w.		
				.35 h.	.25 h.
				30.00 m.	.25 h.
				\$50.00-60.00 m. 2.00 d.	.25 h.
		50.00 m.	2.00 d.		
\$0.68- .80 h.	12.00 w.	\$8.00-14.00 w.	8.00- 12.00 w.	.35- .45 h.	2.25 d.
.70 h.	12.00- 15.00 w.	60.00 m.	25.00 m.	3.50 d.	2.50 d.
					2.00 d.
	3.00- 12.00 w.	3.00-10.00 w.		.30 h.	1.25 d.
.62½ h.		18.00 w.	8.00 w.	.40 h.	.35 h.
				.35 h.	
.70 h.	8.00 w.	18.00 w.	9.00 w.	.40 h.	.25 h.
	10.00 w.	20.00 w.	8.00 w.	.40 h.	2.00 d.
.75 h.	50.00 m.	10.00 w.	7.00 w.	.35 h.	1.75 d.
.80- .90 h.	12.00-15.00 w.	18.00 w.	10.00- 11.00 w.	.40 h.	.25 h.
.80 h.			6.00 w.	.35 h.	1.75 d.
.75 h.		10.00- 15.00 w.	6.00- 8.00 w.	.35 h.	2.10 d.
				.30 h.	.20 h.
.50 h.	.19 h.	12.00 w.	7.00 w.		
			1.00 d.	.35 h.	.25 h.
				.30 h.	.20 h.
			25.00 m.	.35 h.	.20 h.
.85 h.	6.00 w.	9.00 w.	9.00 w.		
	8.00- 14.00 w.	12.00- 18.00 w.	7.00- 9.00 w.	.35 h.	1.50 d.
.80 h.		8.00 w.	7.00 w.	3.50 d.	2.00 d.
			8.00 w.	3.00 d.	1.00 d.
.80 h.	10.00 w.	15.00 w.	1 8.00 w.	.35- .40 h.	.25 h.
	9.00 w.			.25 h.	1.00 d.
.90 h.	10.00 w.	50.00 m.	8.00 w.	.35 h.	.25 h.
	8.00 w.	14.00 w.	7.00 w.		

\* And board and room.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	Blacksmiths.	Boiler makers.	Bricklayers.	Carpenters.	Cleaners and scrubbers, female.
<b>Oklahoma:</b>					
Ardmore (Fed.-Sta.)				\$0.55 h.	
Enid (Fed.-Sta.)			\$1.00 h.	.60 h.	\$0.25 h.
McAlester (Fed.-Sta.)	\$4.25 d.	\$5.80 d.	8.00 d.	6.40 d.	2.50 d.
Muskogee (Fed.-Sta.)					
Oklahoma City (Fed.-Sta.)	4.00 d.			.55 h.	.25 h.
Tulsa (Fed.-Sta.)				.53 h.	
<b>Oregon:</b>					
Eugene (Fed.)	5.50 d.		7.00 d.	5.00 d.	
Portland (Fed.-Mun.)	<sup>2</sup> 5.77½ d.	<sup>2</sup> 5.77½ d.	<sup>2</sup> 7.00 d.	<sup>2</sup> \$5.60- 6.16 d.	<sup>2</sup> \$3.00- 3.20 d.
<b>Pennsylvania:</b>					
Philadelphia (Fed.)	.72½ h.	.70 h.	.70 h.	.65 h.	45.00 m.
Pittsburgh (Fed.)	\$0.55- .65 h.	\$0.55- .75 h.	\$0.60- .75 h.	.65- .80 h.	.25- .30 h.
<b>Rhode Island:</b>					
Providence (Fed.)	.61 h.	.65 h.	.80 h.	.62 h.	.25 h.
<b>South Carolina:</b>					
Charleston (Fed.)	.60 h.	.72½ h.	.60 h.	.60 h.	1.00 d.
<b>Tennessee:</b>					
Chattanooga (Fed.)	.38- .55 h.	.50 h.	.80 h.	<sup>3</sup> .35 h.	
Columbia (Fed.)				6.05 d.	
Jackson (Fed.)				.55 h.	
Memphis (Fed.)	.75 h.	.65 h.	.80 h.	.55 h.	35.00-40.00 m.
Nashville (Fed.-Mun.)				.40- .55 h.	
<b>Texas:</b>					
Brownsville (Fed.)				2.50 d.	
Dallas (Fed.-Mun.)				6.50 d.	2.00 d.
Del Rio (Fed.)				.65 h.	
El Paso (Fed.)				6.00 d.	2.50 d.
Fort Worth (Fed.)	5.00 d.	5.77½ d.		.75 h.	
Galveston (Fed.)		5.70 d.		6.00 d.	
Houston (Fed.-Mun.)	2.50- 5.20 d.	.65- .72½ h.		.75 h.	
Orange (Fed.-Mun.)	.72½ h.	.70 h.		<sup>4</sup> .75 h.	
San Angelo (Fed.)					
San Antonio (Fed.)				.55 h.	1.50 d.
<b>Utah:</b>					
Ogden (Fed.)	5.00 d.	5.80 d.		6.00 d.	
Salt Lake City (Fed.)	6.00 d.			6.60 d.	
<b>Virginia:</b>					
Alexandria (Fed.)	5.80 d.		7.00 d.	6.00 d.	
Norfolk (Fed.)	.72½ h.	.72½ h.	.75 h.	.62½ h.	10.00 w.
Richmond (Fed.)	.72½ h.	.72½ h.	.75 h.	.62½ h.	5.00 w.
Roanoke (Fed.)	.72½ h.			.62½ h.	
<b>Washington:</b>					
Aberdeen (Fed.)	<sup>2</sup> 6.00 d.	<sup>2</sup> 6.00 d.		<sup>2</sup> 6.60 d.	
Bellingham (Fed.-Mun.)	5.00 d.			6.00 d.	
Everett (Fed.)				6.60 d.	
Seattle (Fed.)	6.00 d.	7.00 d.		6.60 d.	
Seattle (Mun.)	5.00- 6.00 d.		.75- 1.00 h.	<sup>2</sup> 6.00- 6.60 d.	.40 h.
Spokane (Fed.)	5.50 d.	6.00 d.	7.00 d.	6.00 d.	.35 h.
Spokane (Mun.)	5.00 d.			6.60 d.	
Tacoma (Fed.-Mun.)	5.77½ d.	5.77½ d.		6.60 d.	.50 h.
Walla Walla (Fed.)				4.50 d.	
Wenatchee (Fed.)					
Yakima (Fed.)		.62 h.	6.00 d.	6.60 d.	
<b>Wisconsin:</b>					
Green Bay (Fed.)				.42- .47 h.	
La Crosse (Fed.)					.25- .30 h.
Madison (Fed.-Sta.-Mun.)	.45 h.			.65 h.	.35 h.
Milwaukee (Fed.)	.50 h.	.60 h.	.50 h.	.50 h.	.25 h.
Oshkosh (Fed.)					.30 h.
Racine (Fed.-Sta.-Mun.)	.47½- .50 h.	.42½- .45 h.			.25 h.
Superior (Fed.)	75.00 m.			.65 h.	.30 h.
<b>Wyoming:</b>					
Cheyenne (Fed.)	.55 h.				

<sup>1</sup> For 9 hours.<sup>2</sup> For 8 hours.<sup>3</sup> And board and room.<sup>4</sup> And board.



LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Cooks, male.	Cooks, female.	Drivers, teams- ters, etc.	Dock laborers.	Farm hands.	Hod carriers.
\$10.00-\$18.00 w.	\$7.00-\$12.00 w.	\$3.00-\$4.00 d.		\$40.00 m.	\$0.40 h.
15.00 w.	10.00 w.	15.00 w.		2.50 d.	3.50 d.
12.00-15.00 w.	7.00-10.00 w.	2.50 d.		\$25.00-40.00 m.	
60.00 m.	10.00 w.	<sup>1</sup> 3.00 d.		40.00 m.	
	15.00 w.			40.00 m.	
75.00 m.	60.00 m.	75.00 m.		3.00 d.	4.00 d.
4.50 d.	3.75 d.	4.00 d.	\$0.80 h.	<sup>2</sup> 2.00 d.	4.50 d.
<sup>4</sup> 75.00-125.00 m.	6.00-15.00 w.	16.00 w.	.70 h.	<sup>4</sup> 25.00-45.00 m.	<sup>2</sup> 3.85 d.
<sup>3</sup> 18.00-24.00 w.	40.00 m.	18.00-23.50 w.		<sup>3</sup> 30.00-45.00 m.	\$0.40-.50 h.
.27 h.	8.00 w.	.28 h.	.35 h.	35.00 m.	.45 h.
35.00-60.00 m.	5.00 w.	.30 h.	\$0.30-.40 h.		
60.00 m.		3.00 d.			
.80 h.	5.00-7.00 w.			2.00 d.	.40 h.
		.20 h.		26.00 m.	
15.00 w.	3.00 w.			1.00 d.	
	9.00 w.	2.25 d.		<sup>4</sup> 3.50 d.	
<sup>3</sup> 3.00 d.	<sup>4</sup> 25.00 m.	1.75 d.		<sup>4</sup> 22.50 m.	
50.00-100.00 m.	45.00 m.	3.00 d.		<sup>4</sup> 1.00 d.	
<sup>4</sup> 55.00 m.	25.00 m.			2.50 d.	
12.00-22.00 w.	10.00-18.00 w.	2.25-2.75 d.		<sup>4</sup> 1.50-2.50 d.	
15.00 w.	6.00 w.	.40 h.		<sup>3</sup> .25 h.	.40 h.
	10.00 w.			1.50-2.50 d.	
	5.00 w.			1.00 d.	
125.00 m.	50.00 m.	3.00 d.		3.50 d.	
				3.50 d.	
60.00 m.	25.00 m.			40.00 m.	
20.00 w.	7.00 w.	20.00 w.	.35-.40 h.	2.00 d.	.40-.50 h.
<sup>4</sup> 25.00 w.	4.00-5.00 w.	12.00-14.00 w.	.35 h.	45.00 m.	.42½ h.
		12.00 w.		<sup>4</sup> 40.00 m.	
100.00 m.		<sup>2</sup> 4.00 d.	.80 h.		
25.00 w.	50.00-80.00 m.	3.50 d.	.70 h.	<sup>3</sup> 60.00 m.	
	50.00 m.			65.00 m.	
100.00 m.	60.00 m.	4.00 d.		65.00 m.	
75.00-150.00 m.	45.00-75.00 m.	<sup>2</sup> 4.00-4.50 d.	.65-.75 h.	<sup>3</sup> 60.00-100.00 m.	<sup>2</sup> 4.50-6.50 d.
80.00 m.	45.00 m.	100.00 m.		65.00 m.	4.50 d.
125.00 m.	75.00 m.	75.00 m.		65.00 m.	
100.00-150.00 m.		4.50-5.00 d.	.65-1.10 h.	45.00-80.00 m.	6.00 d.
	3.00 d.	4.00 d.		5.00 d.	
	60.00 m.	65.00 m.		65.00 m.	
110.00 m.	85.00 m.	4.00 d.		75.00 m.	
		.32½-.35 h.		45.00-60.00 m.	
	30.00 m.			55.00 m.	
18.00 w.		18.00 w.		55.00 m.	.35 h.
80.00 m.	7.00-15.00 w.	.35 h.	.35 h.	45.00 m.	
5.00 w.	4.50 w.	3.00 d.		50.00 m.	
	<sup>4</sup> 70.00 m.	24.00 w.	.35 h.	45.00 m.	
65.00-80.00 m.	50.00-80.00 m.	3.50 d.	4.00 d.	3.00-3.50 d.	
100.00 m.	45.00 m.	3.00 d.		3.00-4.00 d.	

<sup>1</sup> Inside city limits; outside city limits, \$0.55 h.<sup>2</sup> Ship \$0.70 and second class, \$0.65 h.

## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	House servants.	Inside wiremen.	Laborers.	Laundry operators, male.	Laundry operators, female.
<b>Oklahoma:</b>					
Ardmore (Fed.-Sta.)			\$0.30 h.		
Enid (Fed.-Sta.)		\$0.50 h.	.35 h.	\$10.00-\$15.00 w.	\$6.00-\$9.00 w.
McAlester (Fed.-Sta.)	\$5.00 w.	4.80 d.	3.50 d.	2.00 d.	1.50 d.
Muskogee (Fed.-Sta.)	\$5.00-6.00 w.		\$2.50-3.00 d.		5.00-6.00 w.
Oklahoma City (Fed.-Sta.)	1.00 d.		.45 h.		1.50 d.
Tulsa (Fed.-Sta.)	8.00 w.		.40 h.		
<b>Oregon:</b>					
Eugene (Fed.)		.50 h.	3.25 d.	20.00 w.	.21½ h.
Portland (Fed.-Mun.)	35.00 m.	5.77½ d.	.45 h.	25.00 w.	15.00 w.
<b>Pennsylvania:</b>					
Philadelphia (Fed.)	9.00 w.	.60 h.	.35- .40 h.	18.00 w.	7.00 w.
Pittsburgh (Fed.)	\$30.00-35.00 m.	\$0.40- .50 h.	.37½- .42 h.		
<b>Rhode Island:</b>					
Providence (Fed.)		.60 h.	.35 h.	.35 h.	.17 h.
<b>South Carolina:</b>					
Charleston (Fed.)	3.50-5.00 w.	.55- .60 h.	.30 h.		5.00 w.
<b>Tennessee:</b>					
Chattanooga (Fed.)	5.00 w.		\$2.50 d.		
Columbia (Fed.)			3.30 d.		
Jackson (Fed.)	.30 h.				
Memphis (Fed.)	5.00-10.00 w.	.60 h.	.30 h.		6.00-9.00 w.
Nashville (Fed.-Mun.)			.30 h.		
<b>Texas:</b>					
Brownsville (Fed.)	2.50 w.				
Dallas (Fed.-Mun.)	6.50 w.		2.50 d.	12.00 w.	
Del Rio (Fed.)	\$5.00 w.		1.50 d.		
El Paso (Fed.)	\$4.00 w.	7.00 d.	1.50 d.		
Fort Worth (Fed.)			3.50 d.	10.00 w.	10.00 w.
Galveston (Fed.)	15.00 m.		.30- .40 h.		
Houston (Fed.-Mun.)	5.00-8.00 w.	.55 h.	2.00-3.50 d.		1.50 d.
Orange (Fed.-Mun.)			.37- .40 h.		
San Angelo (Fed.)	25.00 m.		2.50 d.		
San Antonio (Fed.)	5.00 w.		.30 h.	1.00 d.	1.00 d.
<b>Utah:</b>					
Ogden (Fed.)	\$25.00 m.	.46½ h.	.40 h.		
Salt Lake City (Fed.)	10.00 w.		1 3.50 d.		
<b>Virginia:</b>					
Alexandria (Fed.)	1.50 d.	5.80 d.	4.00 d.		
Norfolk (Fed.)	3.00-5.00 w.	.70 h.	.35 h.	20.00 w.	10.00-15.00 w.
Richmond (Fed.)	4.00-5.00 w.	.70 h.	.35- .40 h.		5.00-10.00 w.
Roanoke (Fed.)		.72½ h.	.35 h.		6.00 w.
<b>Washington:</b>					
Aberdeen (Fed.)	35.00-50.00 m.		\$4.00 d.		10.00-20.00 w.
Bellingham (Fed.-Mun.)			.50 h.		
Everett (Fed.)			.45 h.		
Seattle (Fed.)	40.00 m.		4.00 d.		
Seattle (Mun.)	25.00-60.00 m.	.75 h.	14.00-5.00 d.	18.00-25.00 w.	1.75-2.50 d.
Spokane (Fed.)	30.00 m.	6.50 d.	4.00 d.	21.00 w.	13.00 w.
Spokane (Mun.)			.50 h.		
Tacoma (Fed.-Mun.)		7.00 d.	4.50 d.		
Walla Walla (Fed.)	30.00 m.		3.00 d.		
Wenatchee (Fed.)			4.00 d.		
Yakima (Fed.)	40.00 m.		4.00 d.		15.00 w.
<b>Wisconsin:</b>					
Green Bay (Fed.)	\$4.00-10.00 w.		.30- .35 h.		
La Crosse (Fed.)	4.00-7.00 w.		.45 h.		
Madison (Fed.-Sta.-Mun.)	8.00 w.		.40 h.	7.00 w.	
Milwaukee (Fed.)		.47½ h.	.40 h.	.25 h.	.25 h.
Oshkosh (Fed.)	5.00 w.		.25 h.		
Racine (Fed.-Sta.-Mun.)	6.00-8.00 w.		.32½- .47½ h.		.20- .30 h.
Superior (Fed.)	15.00-20.00 m.		4.00 d.		.15- .18 h.
<b>Wyoming:</b>					
Cheyenne (Fed.)	40.00-50.00 m.		.30- .50 h.	25.00-30.00 w.	18.00-20.00 w.

<sup>1</sup> For 8 hours. <sup>2</sup> And board and room. <sup>3</sup> Inside city limits; outside city limits, \$3.30 per day.

## LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Continued.

Machinists.	Molders.	Painters.	Plasterers.	Plumbers.	Saleswomen.
\$0.55 h.		\$0.50 h.	\$0.55 h.	\$0.72 h. .50 h.	\$5.00-\$18.00 w.
5.80 d.	\$6.00 d.	6.20 d.	8.00 d.	6.00 d.	10.00 w.
		.70 h.		.72 h.	12.50 w.
.60 h.	.53 h.	5.00 d.	6.00 d.	5.00 d.	70.00 m.
<sup>1</sup> 5.77½ d.	<sup>1</sup> 6.60 d.	<sup>1</sup> 5.50 d.	<sup>1</sup> 7.00 d.	<sup>1</sup> 5.77½ d.	45.00 m.
.65- .60- .72½ h. .68 h.	.72½ h. \$6.00- 8.00 d.	.65 h. \$0.55- .60 h.	.75 h. .55 h.	.70 h. \$0.60- .70 h.	8.00-15.00 w. 12.00-17.00 w.
.60 h.	.60 h.	.55 h.	.80 h.	.80 h.	.18 h.
\$0.60- .70 h.	.72 h.	.60 h.	.60 h.	.70 h.	7.50-15.00 w.
.60 h. .72 h.	.40 h.				
.60 h.		.50 h.	.75 h.	.75 h.	8.00-18.00 w.
				.72 h.	
6.00 d.	6.50 d.	5.80 d.			
.68 h.		5.50 d.		8.00 d.	15.00 w.
.67- .72½ h. .72½ h.	.72½ h. 4.50 d.	3.53- 5.20 d. .60- .75 h.		.72 h.	9.00-15.00 w.
.72½ h.	.82½ h.			.72 h.	
.60 h. 6.00 d.	5.60 d.	<sup>4</sup> 27.00 m.			
5.20 d. .72½ h. .72½ h. .75 h.	.72 h. .72½ h.	5.00 d. .60 h. .60 h. .55 h.	6.00 d. .70 h. .60 h. .60 h.	.72½ h. .72½ h. .72½ h.	8.00-10.00 w. 6.00- 7.00 w. 6.00 w.
<sup>1</sup> 6.00 d.		<sup>1</sup> 5.50 d.		<sup>1</sup> 8.00 d.	12.00 w.
6.00 d.					
6.60 d. <sup>1</sup> 5.00- 7.00 d. 6.00 d.	6.60 d. 6.00 d.	<sup>1</sup> 5.00- 6.00 d. 6.00 d.	\$0.75- 1.00 h. 7.00 d.	<sup>1</sup> 6.00- 7.00 d. 6.00 d.	12.00 w.
6.00 d.	7.20 d.	6.00 d.	8.00 d.	7.20 d.	
.60½ h.					
.55 h. .55 h. .37 h.	.55 h. .55 h.	3.50 d. .40 h.	.40 h.		
.45- .60 h. .72½ h.	6.00-10.00 d.		.80 h.	5.50 d.	8.00-10.00 w.

<sup>4</sup> And board.<sup>6</sup> Female.



## RATES OF WAGES PAID TO WORKERS PLACED IN EMPLOYMENT BY PUB

State, city, and kind of office.	Seamstresses.	Sewing-machine operators, male.	Sewing-machine operators, female.	Stenographers, male.	Stenographers, female.
<b>Oklahoma:</b>					
Ardmore (Fed.-Sta.)					\$75.00 m.
Enid (Fed.-Sta.)				\$50.00-\$75.00 m.	\$50.00-75.00 m.
McAlester (Fed.-Sta.)	\$2.00 d.	\$2.00 d.	\$2.00 d.	50.00 m.	50.00 m.
Muskogee (Fed.-Sta.)				75.00-100.00 m.	75.00-100.00 m.
Oklahoma City (Fed.-Sta.)	10.00 w.		10.00 w.	100.00 m.	90.00 m.
Tulsa (Fed.-Sta.)					90.00 m.
<b>Oregon:</b>					
Eugene (Fed.)					60.00 m.
Portland (Fed.-Mun.)	12.00 w.		12.00 w.	4.00 d.	3.00 d.
<b>Pennsylvania:</b>					
Philadelphia (Fed.)	2.00 d.	35.00 w.	\$10.00-35.00 w.	1,500 y.	900-1,200 y.
Pittsburgh (Fed.)	2.50 d.			80.00-110.00 m.	60.00-80.00 m.
<b>Rhode Island:</b>					
Providence (Fed.)		.50 h.	.25 h.	15.00 w.	12.00 w.
<b>South Carolina:</b>					
Charleston (Fed.)	\$2.00-3.04 d.	\$3.60-4.60 d.	2.00-3.04 d.	100.00-125.00 m.	100.00 m.
<b>Tennessee:</b>					
Chattanooga (Fed.)				18.00 w.	
Columbia (Fed.)					125.00 m.
Jackson (Fed.)					
Memphis (Fed.)	1.00-3.50 d.		6.00-20.00 w.	125.00 m.	10.00-25.00 w.
Nashville (Fed.-Mun.)					60.00 m.
<b>Texas:</b>					
Brownsville (Fed.)					
Dallas (Fed.-Mun.)	2.00 d.			75.00 m.	65.00 m.
Del Rio (Fed.)					75.00 m.
El Paso (Fed.)	3.00 d.				85.00 m.
Fort Worth (Fed.)				100.00 m.	80.00 m.
Galveston (Fed.)					75.00 m.
Houston (Fed.-Mun.)	2.50 d.		9.00 w.	110.00 m.	100.00 m.
Orange (Fed.-Mun.)					
San Angelo (Fed.)					
San Antonio (Fed.)	1.50 d.			90.00 m.	15.00 w.
<b>Utah:</b>					
Ogden (Fed.)					105.00 m.
Salt Lake City (Fed.)					
<b>Virginia:</b>					
Alexandria (Fed.)					80.00 m.
Norfolk (Fed.)	8.00-10.00 w.	8.00-10.00 w.	8.00-10.00 w.	125.00 m.	75.00-100.00 m.
Richmond (Fed.)	10.00-12.00 w.		6.00-8.00 w.	125.00 m.	40.00-90.00 m.
Roanoke (Fed.)				100.00 m.	80.00 m.
<b>Washington:</b>					
Aberdeen (Fed.)					100.00 m.
Bellingham (Fed.-Mun.)					
Everett (Fed.)					
Seattle (Fed.)					
Seattle (Mun.)	2.00-2.50 d.			100.00-150.00 m.	75.00 m.
Spokane (Fed.)	14.00 w.	21.00 w.	14.00 w.	90.00 m.	60.00 m.
Spokane (Mun.)					
Tacoma (Fed.-Mun.)					
Walla Walla (Fed.)					65.00 m.
Wenatchee (Fed.)					
Yakima (Fed.)					100.00 m.
<b>Wisconsin:</b>					
Green Bay (Fed.)	1.50-2.00 d.				50.00 m.
La Crosse (Fed.)					
Madison (Fed.-Sta.-Mun.)	2.00 d.			25.00 w.	75.00 m.
Milwaukee (Fed.)	7.00-8.00 w.			75.00 m.	60.00 m.
Oshkosh (Fed.)					11.00 w.
Racine (Fed.-Sta.-Mun.)			6.00-8.00 w.		60.00 m.
Superior (Fed.)				100.00 m.	75.00 m.
<b>Wyoming:</b>					
Cheyenne (Fed.)					85.00-100.00 m.

<sup>1</sup> And board.<sup>2</sup> And room and board.

## LIC EMPLOYMENT OFFICES IN THE UNITED STATES, JULY, 1918—Concluded.

Structural- iron workers.	Telephone operators (switchboard), female.	Waiters.	Waitresses.	Casual workers, male.	Casual workers, female.
	\$1.00 d.	\$5.00-\$12.00 w.	\$7.00 w. \$5.00- 10.00 w.	\$0.35 h.	\$0.30 h.
	7.50 w.	6.00 w.	6.00 w.	.35 h.	.25 h.
	\$7.00- 8.00 w.	8.00- 12.00 w.	6.00- 10.00 w.	2.50 d.	\$1.25- 1.75 d.
	8.00 w.	9.00 w.	9.00 w.	.40 h.	.30 h.
	52.00 m.		35.00 m.	.35 h.	.25 h.
\$6.00 d.	13.00 w.	20.00 w.	16.00 w.	.45 h.	.40 h.
\$0.80- 1.50 h.	9.00- 15.00 w.		<sup>1</sup> 25.00- 40.00 m.	.35 h.	2.00 d.
.50- .65 h.	8.00- 10.00 w.	<sup>2</sup> 12.00- 15.00 w.	<sup>1</sup> 6.00- 10.00 w.		
.55 h.	10.00 w.	10.00 w.	8.00 w.	.35 h.	.25 h.
				.25 h.	1.00 d.
			<sup>1</sup> 30.00 m.	2.50 d.	9.00 w.
.75 h.	7.00- 16.00 w.	<sup>1</sup> 4.00 w.	<sup>1</sup> 3.00 w.		
		50.00 m.	3.50- 8.50 w.		1.50 d.
				1.00 d.	
		2.00 d.	12.00 w.	2.25 d.	2.00 d.
		<sup>1</sup> 14.00 w.	<sup>1</sup> 5.00 w.		
	45.00 m.	15.00 w.	1.75 d.	1.10 d.	
		15.00 w.	15.00 w.	3.00 d.	
		15.00 w.	9.00 w.		1.50- 2.00 d.
		16.00 w.	6.00 w.		
		10.00 w.	8.00 w.	.25 h.	1.00 d.
		90.00 m.	50.00 m.	3.50 d.	2.00 d.
	8.00- 10.00 w.	2.00 d.	8.00- 10.00 w.	.35 h.	1.00 d.
	9.00- 10.00 w.	10.00- 15.00 w.	5.00- 10.00 w.	3.00 d.	1.00 d.
		18.00 w.			
	<sup>3</sup> 1.50- 2.00 d.	<sup>1</sup> 18.00 w.			
		10.00- 20.00 w.			
			<sup>1</sup> 9.00- 14.00 w.	.60 h.	.30 h.
				.50 h.	
		18.00 w.	12.00 w.		
	13.00 w.	15.00- 21.00 w.	2.00- 3.00 d.	.50 h.	.35- .40 h.
		18.00 w.	13.00 w.	.40 h.	.35 h.
		4.00 d.	3.00 d.	.50 h.	.35 h.
			40.00 m.	\$0.50- .75 h.	.50 h.
			10.00 w.	.40 h.	
				4.00 d.	
				.45 h.	.35 h.
			<sup>1</sup> 4.50- 5.00 w.	.25- .30 h.	.15- .25 h.
		4.00- 7.00 w.	4.00- 7.00 w.	.35 h.	.25- .30 h.
		40.00 m.	35.00 m.	.35 h.	.35 h.
.45 h.			6.00- 7.00 w.	.35 h.	
			5.00 w.	.25- .35 h.	.25- .30 h.
			10.00 w.	.35 h.	.25 h.
	22.50 m.	50.00 m.	6.00- 9.00 w.	.40 h.	.30 h.
				.40- .50 h.	2.50- 3.00 d.

<sup>3</sup> For 8 hours.

**LABOR ADJUSTMENT AND THE PAYMENT OF BONUSES AT COAL MINES.**

The United States Fuel Administration announced on July 23, 1918, that at a conference between the Federal Fuel Administrator, Harry A. Garfield, and the international officials of the United Mine Workers of America, a complete understanding was reached wherein all questions pertaining to labor in the coal mining industry will remain under the jurisdiction of the United States Fuel Administrator. This is in accordance with an understanding previously reached between the Secretary of Labor and the United States Fuel Administrator.

In order that this arrangement may be made effective, the United States Fuel Administrator has created a bureau of labor, to which all matters relating to labor controversies will be referred for settlement. The United States Fuel Administrator has appointed Mr. John P. White, formerly president of the United Mine Workers of America, and Mr. Rembrandt Peale, coal operator for Central Pennsylvania, joint heads of this bureau, with power as his deputies to consider and dispose of all matters concerning labor in the coal mining industry properly coming before the Fuel Administration and subject to the procedure prescribed in existing joint agreements.

The following statement of principles was made by the United States Fuel Administrator at conferences at which were present Mr. Frank J. Hayes, president, Mr. John L. Lewis, vice-president, and Mr. William Green, secretary and treasurer of the United Mine Workers of America, and Mr. John P. White and Mr. Rembrandt Peale, representing the Fuel Administration, all of whom acquiesced in the statement as expressing their understanding of the principles followed by the United States Fuel Administration and by the International Union of Mine Workers in settling questions relating to labor in the coal mining industry, it being understood that wherever the Federal Government is called upon to intervene or of its own motion intervenes in the settlement of such questions, whether in organized or unorganized fields, jurisdiction shall remain for the present and until otherwise arranged in the hands of the United States Fuel Administrator. The text of the understanding is as follows:

The United States Fuel Administrator understands—

- (a) That no strike shall take place pending the settlement of any controversy until the dispute has been reviewed and decided by him;
- (b) That recognition of the unions shall not be exacted during the continuance of the war except where now recognized by collective bargaining;
- (c) That where, by joint contract between employer and employed, machinery is provided for the settlement of controversies, United States Fuel Administrator shall not be required to intervene or to mediate until such means have been invoked and the remedy exhausted without reaching adjustment;



(d) That where the United States Fuel Administrator intervenes, substantially, the principles, provisions, and practices laid down in the Maryland and upper Potomac settlement of May 6, 1918, shall be accepted by the workers, and employers and their chosen representatives, as sufficient.

(e) On the basis of the foregoing understanding which he regards as just and imperative in the present crisis, the United States Fuel Administrator has insisted and will continue to insist that any adjustment of labor questions in the coal mining industry, whether by joint agreement between operators and mine workers or by agreements severally made with the United States Fuel Administrator, shall embody wherever applicable and substantially the principles, provisions, and practices laid down in the Maryland and upper Potomac settlement of May 6, 1918, and recognize the authority of the International Union of Mine Workers in the organized fields and their jurisdiction over controversies arising in said fields. More specifically, the United States Fuel Administrator has insisted and will continue to insist in all such settlements—

(a) That employers will be required to relinquish the right to discharge employees because of affiliation with labor unions;

(b) That employers will be required to recognize the right of their employees to organize by peaceful methods that do not interrupt production;

(c) That the so-called automatic penalty clause now in force being regarded by mine workers as a cardinal principle of collective bargaining during the continuance of the war, will be included in all agreements as a condition precedent to the allowance of increased price permitted to operators;

(d) That where the union shops now exist the same shall continue, and where union and nonunion men work together the continuance of such condition shall not be deemed a grievance.

It should be stated in this connection that the Maryland and upper Potomac settlement of May 6, 1918, to which reference is made, contains, among others, provisions which may be summarized as follows:

Mine committees shall be elected, and the management shall receive such committees, to adjust disputes which the superintendent and the mine foreman and the employee or employees affected are unable to adjust. In case it is impossible thus to reach a settlement, the dispute shall be referred to an umpire appointed at the request of the United States Fuel Administrator who shall have the right to review the appointment. Members of committees are given protection in the discharge of their duties.

The employees' right to join any labor organization is recognized, and they are not to be discriminated against for such action. Employees discharged because of union affiliation are accorded the right to reemployment.

Employees are given the right to employ a checkweighman.

There shall be equitable distribution of mine cars.

The semimonthly pay day shall be maintained at all mines.

The right of employees to meet in peaceable assemblage shall not be interfered with or abridged.

The penalty clause, providing for the deduction of \$1 per day from the wages of any employee who interrupts the operation of the mine

or causes a strike, and the payment of a fine at the rate of \$1 per day for every mine worker affected by the operator who locks out his men without just cause, is recognized.

#### PAYMENT OF BONUSES.

A definite step was taken by the Fuel Administrator against the payment of bonuses by coal operators in a statement issued on August 5, 1918, declaring that the "payment of bonuses in any form is contrary to the spirit of the wage agreements made by operators and mine workers with the President of the United States last November."<sup>1</sup> Announcement is made that the payment of bonuses will be considered a violation of those agreements and that steps will be taken to reduce the mine price of coal as a penalty. The statement by Dr. Garfield regarding payment of bonuses is as follows:

Information is reaching me that coal operators are bidding against each other for labor by payment of bonuses. This inevitably causes unrest and shifts but does not increase the total production of coal. Maximum production is essential to the successful conduct of the war and for the welfare of the boys in the trenches. The democracy we are seeking to establish at home and abroad demands that maximum production be based on an arrangement fair to all concerned—to all mine workers, all operators, and all the public.

The payment of bonuses in any form is contrary to the spirit of the wage agreements made by operators and mine workers with the President of the United States last November. Those agreements covered the period of the war. With full confidence therefore that the Fuel Administration will have the support of all associations and individuals in curbing violations of that agreement, I hereby announce that if any operator hereafter undertakes to pay a bonus in any form in violation of the terms or spirit of the agreements above referred to, I shall assume that the mine price of coal allowed that operator is too high and I shall accordingly order reduction thereof. Also, I am directing investigation of alleged payments of bonuses now or since the November agreement, and shall make such further order and regulations as the facts may justify.

#### RECENT APPLICATION OF THE EIGHT-HOUR DAY.

During the war period previous movements for shorter hours have continued and have been greatly accelerated by the fact that Government contracts have required the eight-hour day. The eight-hour day has regularly been waived and overtime work required at increased compensation. The eight-hour movement gained headway before the United States entered the war. As an instance of this fact may be cited the movement for the reduction of hours in the machine trades, which began late in 1915 and continued in 1916. Before our entry into the war railroad employees secured the so-called basic eight-hour day and the anthracite-coal agreement for an eight-hour day was also signed. Since the establishment of the

<sup>1</sup> See MONTHLY REVIEW for December, 1917, pp. 110, 111.

National War Labor Board, whose program of administration is committed to the eight-hour day, the movement has gained very considerable headway.

In following this movement, it may be noted, it has not always been possible to distinguish in the reports and sources of information the eight-hour day as representing an actual working day and the eight-hour day which is made the basis of wage compensation with extra pay for work beyond eight hours. However, while the movement has not always signified a reduction in hours of work for the wage earner, it has at least signalized the acceptance of the principle of the shorter work day.

Industries which as a whole have gone on an eight-hour day with additional pay for overtime are contained in the following tabulation. As the table carries the account only to June 30, 1918, it may be noted that it does not include the placing of about 28,000 employees of the Bethlehem Steel Co., at Bethlehem, Pa., on an eight-hour day with time and one-half for overtime by an award of the National War Labor Board on July 31 (see pp. 27-30), nor does it contain industries in which numbers of wage earners have secured a reduction in hours from time to time as a result of sporadic agreements affecting only small numbers in certain localities. The number of wage earners who have secured the eight-hour day in that manner is shown in the table on page 193. From that table it appears that during 1917 and the first six months of 1918 about 935,000 workers have gone on an eight-hour basis.

INDUSTRIES WHICH HAVE GONE ON AN EIGHT-HOUR DAY SINCE THE ENTRY OF THE UNITED STATES INTO THE WAR UP TO JUNE 30, 1918.<sup>1</sup>

Industry.	Date.	How accomplished.	Number affected.	
			Establishments.	Employees.
Garment trades.....	1917.....	Collective agreements.	.....	178,000
Government construction work.	June 19, 1917.....	Agreement between the Secretary of War and the president of the American Federation of Labor.	.....	<sup>2</sup> 108,000
Harness and saddlery industry (so far as engaged on Government work).	Aug. 3, 1917.....	Executive order.....	100 manufacturers signed agreement.	( <sup>3</sup> )
Lumber and saw mills of Washington, Oregon, Idaho, and California.	Mar. 1, 1918, and later.	Action of employees and advice of United States Signal Corps.	.....	50,000
News-print paper industry...	July 1, 1918.....	Award National War Labor Board.	19	40,000
Shipyards.....	Various dates.....	Labor Adjustment Board.	.....	133,000
Slaughtering and meat packing.	May 1, 1918.....	Federal arbitration award.	.....	100,000

<sup>1</sup> All Government contract work, by act of 1912 and Executive order of May, 1917, should also be included. Because of the possibility of different interpretations of the law, no statement as to the number of industries or the number of employees affected can be made.

<sup>2</sup> This number not included in tables below, as the trades and occupations affected are not known.

<sup>3</sup> Not reported.



The recent eight-hour movement began with the railroad brotherhoods in 1916-17. As a result of a threatened strike certain adjustments were made in pay on the basis of an 8-hour day instead of a former 10-hour day. This change was secured by the Adamson law of September 3, 1916. The new day has been termed by the railroad world the basic 8-hour day. This change in the railroad day has affected approximately 400,000 workers.

The 8-hour day has been in force in the Government navy yards and arsenals for many years, and time and one-half has been paid for overtime work. The Federal Bureau of Engraving and Printing, where mostly women are employed, has always been an 8-hour establishment, but in periods of rush increased hours have regularly been worked. Only recently was the 8-hour day introduced with time and one-half paid for overtime. This has affected approximately 6,600 employees in the bureau. All Government construction work connected with the building of the Army camps and cantonments is on an 8-hour day with extra pay for overtime. At present, over 108,000 employees are so affected.

The 8-hour day with overtime pay has now become universal in the shipyards of the United States Emergency Fleet Corporation in which approximately 133,000 employees are engaged.

Coal mining has very largely been an 8-hour industry, at least in the organized bituminous coal fields. The anthracite coal fields had since 1903 operated on a 9-hour basis, but in 1916, by agreement, the 8-hour day was accepted. That agreement when made affected over 180,000 employees; at present only about 152,000 workmen are engaged in the anthracite fields.

The slaughtering and meat-packing industry has always been classed as a 10-hour industry. Beginning May 1, 1918, it became an 8-hour industry with extra pay for overtime, by an arbitration award handed down by a Federal arbitrator.<sup>1</sup> This award has affected about 100,000 workmen.

In the machine trades a rapid movement for the reduction of hours began in 1915, chiefly in firms having Government contracts, though not exclusively restricted to such plants. Roughly speaking, this movement now affects 114,000 workers.

Another group of workers who have benefited recently by the 8-hour day is that of the garment workers. Large numbers of these during the latter half of 1916 and the first half of the year 1917 secured by agreement the 8-hour day. Approximately 178,000 garment workers now have a prevailing 8-hour day. This is an industry which has usually been considered as having a work day of 9 hours or over.

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<sup>1</sup> See MONTHLY REVIEW, May, 1918, pp. 115 to 127.

Lumber operators in Washington, Oregon, Idaho, and California, acting on the advice of Government representatives of the United States Signal Corps, have placed their establishments on an 8-hour day with overtime pay. This has affected probably 50,000 workmen.

Lastly, there may be instanced the placing of the news-print paper industry upon an 8-hour day, with time and one-half for overtime, accomplished by an award of the National War Labor Board.<sup>1</sup> This award affects 19 establishments in the news-print mills of the United States. While the establishments directly affected employ only about 18,000 workmen, altogether the agreement affects probably 40,000 employees.<sup>2</sup>

#### CASES OF REDUCTION OF THE WORKING DAY TO EIGHT HOURS, 1915 TO 1918.

The following tables present information as to the reduction of hours of labor to 8 per day, or 48 per week, in manufacturing and other establishments in the United States during 1915; 1916, 1917, and the first six months of 1918, as reported by leading trade-union periodicals, labor papers, trade journals, daily papers published in various parts of the country, and by replies to inquiries made by the bureau. While the information is necessarily incomplete, it is believed that the 881 reports from which data were obtained include no duplications.

As indicated in the following summary, 403 of these reports show the number of establishments involved, the total reported being 4,240. The number of employees affected was shown in 220 reports, the total being 1,448,532.

#### SUMMARY OF REPORTS SHOWING REDUCTION OF THE WORKING DAY TO 8 HOURS, 1915 TO 1918.

Item.	1915	1916	1917, January to June.	1917, July to Decem- ber.	1918, January to June.	Total.
Total number of reports examined.....	121	210	203	166	181	881
Reports showing number of establishments involved:						
Number of reports.....	99	134	69	63	38	403
Number of establishments reported.....	224	3,027	226	308	455	4,240
Reports showing number of employees affected:						
Number of reports.....	75	84	34	13	14	220
Number of employees reported.....	171,978	342,138	512,587	91,208	330,621	1,448,532 <sup>a</sup>
Reports showing both establishments involved and employees affected:						
Number of reports.....	73	67	17	11	11	179
Number of establishments reported.....	174	2,801	135	69	383	3,562
Number of employees reported.....	168,563	124,125	50,902	35,051	180,300	558,941

<sup>1</sup> The award is printed in full in the MONTHLY LABOR REVIEW for August, 1918, pp. 152, 153.

<sup>2</sup> Official Bulletin, July 31, 1918, p. 19.

The following table shows by industries the number of establishments and the number of employees for which reports were obtained covering the periods specified. As indicated in the preceding summary table, the sources of the data do not in all cases give both number of establishments and number of employees, hence the total number of employees shown can not be related to the total number of establishments given.

NUMBER OF ESTABLISHMENTS REPORTED AS ADOPTING THE EIGHT-HOUR DAY AND NUMBER OF EMPLOYEES REPORTED AS HAVING WORKDAY REDUCED TO 8 HOURS, IN 1915, 1916, 1917, AND THE FIRST SIX MONTHS OF 1918, BY INDUSTRIES.

*Establishments.*

	1915.	1916.	1917, January- June.	1917, July-De- cember.	1918, January- June.	Total.
Aluminum manufacturing.....		1				1
Bakers.....		3	2	2	1	8
Boots and shoes.....		2			1	3
Bottlers and brewers.....	7	2	2	1	2	14
Brass workers.....	1	2	1			4
Broom manufacturers.....		31				31
Building trades.....		59	6	2	7	74
Carriages and automobiles.....		13	3			16
Cement and concrete.....	1	1				2
Chemicals.....	4	2				6
Clerks, store.....			4			4
Cooperage.....		3				3
Electric and gas lighting.....		2		1	1	4
Electrical supplies.....	8	4		2	5	19
Flour mills.....			1			1
Food and tobacco.....	4	2		1		7
Foundry and machine shops.....	154	256	23	42	11	486
Furniture.....		5	8			13
Garment workers.....	5	1,971	107	33	2	2,118
Glass manufacturing.....		1		2		3
Hardware and stove manufacturing.....	1	2	1		2	6
Hotel and restaurant workers.....		20		3		23
Iron and steel.....		1	1		1	3
Jewelry.....		200				200
Laundry.....	1	1				2
Leather workers.....				3	1	4
Lumber.....		5	5	154	200	364
Metal polishers.....		39	4	2	2	47
Mining.....		33	18		60	116
Municipal and State employees.....	2	4	3			9
Munitions.....	6	8	2		1	17
Musical instruments.....	1	2	1			4
Oil workers.....	4	4	3			11
Packers.....					18	18
Paint manufacturing.....					2	2
Paper manufacturing.....		28	2	20	19	69
Plated ware.....	2	1	2			5
Pattern makers.....			19			19
Police men.....	1	1	3	1	2	8
Printing and publishing.....	3	1	1		1	6
Railroads.....		3	20	25	7	55
Rubber goods.....	1	11	1	1		14
Ship and boat building.....	2	4	1	4	4	15
Sporting goods.....	1					1
Street railways.....				2	3	5
Telephone and telegraph.....	1	1	1	6	1	10
Textile workers.....	1	1	2		100	104
Theatrical employees.....		1				1
Window cleaners.....		300				300
Miscellaneous.....		1	1	1	1	4
Total.....	224	3,027	226	308	455	4,240



NUMBER OF ESTABLISHMENTS REPORTED AS ADOPTING THE EIGHT-HOUR DAY AND NUMBER OF EMPLOYEES REPORTED AS HAVING WORKDAY REDUCED TO 8 HOURS, IN 1915, 1916, 1917, AND THE FIRST SIX MONTHS OF 1918, BY INDUSTRIES—Concluded.

*Employees.*

	1915	1916	1917, January- June.	1917, July-De- cember.	1918, January- June.	Total.
Aluminum manufacturing.....		275				275
Bakers.....		1,471				1,471
Boots and shoes.....		24,000				24,000
Bottlers and brewers.....	40	560	100			700
Brass workers.....	2,060					2,060
Building trades.....		28,676	610		1,800	31,086
Carriages and automobiles.....	31,085		1,000			32,085
Cement and concrete.....	45					45
Chemicals.....	46	82				128
Clerks, store.....			2,000		1,500	3,500
Cooperage.....		13				13
Electrical supplies.....	3,941	852			12,000	16,793
Electric and gas lighting.....				1,500		1,500
Food and tobacco.....	300					300
Foundry and machine shops.....	88,300	19,336	3,185	2,453	816	114,090
Furniture.....		314	40			354
Garment workers.....	11,750	67,625	96,600	2,035		178,010
Glass workers.....					100	100
Hotel and restaurant workers.....		125				125
Iron and steel.....			300			300
Jewelry.....		3,000				3,000
Laundry.....	35					35
Leather workers.....				4,600		4,600
Lumber.....		66	1,875	1,620	50,000	53,561
Metal polishers.....			500			500
Mining.....		184,000	2,000	24,000	4,000	214,000
Municipal and State employees.....		4				4
Munitions.....	18,000	6,000				24,000
Musical instruments.....	7,500	54				7,554
Oil workers.....	7,180	350	300		10,000	17,830
Paper manufacturing.....		485	2,500			2,985
Packers.....				300	106,000	106,300
Plated ware.....	1,134					1,134
Policemen.....			102		31	133
Printing and publishing.....					6,600	6,600
Railroads.....		1,300	400,400	28,500	2,000	432,200
Rubber goods.....	192	1,500				1,692
Ship and boat building.....	120	1,250			133,000	134,370
Telephone and telegraph.....				25,000	2,300	27,300
Textile workers.....	250				324	574
Window cleaners.....		800	75	1,200		2,075
Miscellaneous.....			1,000		150	1,150
Total.....	171,978	342,138	512,587	91,208	330,621	1,448,532

## FEDERAL EIGHT-HOUR LAW AND EXECUTIVE ORDERS PERTAINING THERETO.

The committee appointed to investigate the question of the applicability of the eight-hour laws and the Executive orders requiring the wages of persons employed upon certain Government work to be computed upon an eight-hour basic day rate, with time and one-half for overtime, submitted the following memorandum to the War Labor Policies Board:

## 1. EXISTING EIGHT-HOUR LAWS AND EXECUTIVE ORDERS.

Prior to March 24, 1917, there were two different laws containing provisions limiting the hours of work of laborers and mechanics to eight hours.

(a) By the act of March 3, 1913 (which amended the act of Aug. 1, 1892), the service and employment of all laborers and mechanics who are now or may hereafter be employed by the Government of the United States or the District of Columbia or

by any contractor or subcontractor upon a public work of the United States or of the District of Columbia are limited and restricted to eight hours in any one calendar day; and it is made a misdemeanor for any officer of the United States Government or for any such contractor or subcontractor to require or permit such laborers and mechanics to work more than eight hours in any calendar day except in case of extraordinary emergency.

(b) By Executive order of the President, dated April 28, 1917, the current status of war was declared, "to constitute an 'extraordinary emergency' within the meaning of that term as used in the eight-hour act of March 3, 1913, and that laborers and mechanics employed," in "the construction of any military building or for any public work which in the judgment of the Secretary of War is important for purposes of national defense," whether employed by Government contractors or by agents of the Government, may be required to work in excess of eight hours per day. When laborers and mechanics under the provisions of that order are required to work more than eight hours their wages must be computed upon a basic day rate of eight hours with time and one-half for overtime.

(c) The act of June 19, 1912, provided that every contract to which the United States is a party which will involve the employment of laborers or mechanics shall contain a provision that no laborer or mechanic doing any part of the work contemplated by the contract shall be required or permitted to work more than eight hours in any one day. This act excepted from its operation contracts for such materials or articles as may usually be purchased in the open market, whether made to conform to particular specifications or not. This exception was limited by a provision that all classes of work which have been or are now being performed by the Government shall when done by contract be performed in accordance with the terms of the eight-hour law.

This act was suspended by the Executive order of the President dated March 24, 1917, pursuant to the authority vested in the President by the naval appropriation act proviso approved March 4, 1917, upon the condition that the wages of persons employed upon such contracts shall be computed upon a basic day rate of eight hours with time and one-half for all overtime work in excess of eight hours.

## 2. DIFFICULTIES EXPERIENCED IN THE APPLICATION OF THE EIGHT-HOUR LAW AND OF THE EXECUTIVE ORDER.

(a) No difficulties have been experienced in carrying out the provisions of August 1, 1892, and of March 3, 1913.

(b) It is in the application of the Executive order to contracts originally included within the act of June 19, 1912, that the greatest difficulties have been encountered. Under the present law only those contracts which were subject to the eight-hour law are subject to the provisions of the Executive order. This has given rise to a series of difficult questions as to whether the articles contracted for are usually purchased in the open market or whether the Government itself has been or is now to any substantial extent manufacturing these articles. Furthermore, different rulings were made by the Army and Navy with respect to the applicability of the Executive order of the President.

(c) Difficulties in standardizing wages. Overtime work is one of the recognized methods of increasing wages. Unless uniform provisions are made for overtime no standard scale of wages fixed by any board will produce the result desired, since a manufacturer paying time and one-half for overtime for the ninth and tenth hour is in fact paying a 10 per cent higher wage than one who pays straight time for this work. If we are to effectively standardize wages we must also standardize overtime, and we can not, without creating new difficulties with labor, require an employer who is maintaining the 8-hour basic day to change to the 10-hour day. This can probably be overcome by taking this fact into account in standardizing wages.

### 3. THE EFFECT OF INCONSISTENT RULINGS.

In many cases workers in the same factories engaged on different articles needed by the Government were treated differently. In more numerous instances workers in adjoining factories engaged on Government work, by reason of the nature of the articles manufactured, were treated differently. These rulings, which in the light of present conditions would seem arbitrary to the workers (whatever historical justification they might have), have created in the workers a sense of injustice and of unfair discrimination which has been responsible for a great many labor troubles.

4. From the point of view of the Government no reason exists at the present time for distinction between the different classes of Government work. The policy underlying the act of June 19, 1912, was that of persons employed by contractors doing work especially for the United States, were indirectly in the employ of the United States and were to be treated in the same way as employees working directly for the Government. With respect to articles that were usually purchased in the open market the Government was to be like any other purchaser.

At the present time all open-market purchases have largely been done away with and every contractor is in effect manufacturing articles especially for the Government.

Furthermore, the exception contained in the eight-hour law is important where contracts are awarded as a result of competitive bidding. To require compliance with the eight-hour law under such circumstances would have so narrowed the field of competition as practically to do away with the provisions requiring competitive bidding. To-day, where the problem has become one of manufacture, and hardly any articles are purchased ready-made, it is no longer necessary for the protection of the Government to except articles that are usually purchased in the open market from the eight-hour law.

### 5. OBJECTION TO POLICY OF APPLYING EIGHT-HOUR LAW AND THE EXECUTIVE ORDER TO ALL GOVERNMENT CONTRACTS.

The objection made by manufacturers to the uniform application of the Executive order is twofold.

The first objection is that the Executive order recognized eight hours as a basic day. Manufacturers are unwilling to give to the eight-hour day this recognition for fear that it will form a precedent for conditions after the war.

The other objection urged by the manufacturers is far more serious, and should determine our position at the present time. It can not be doubted that if the eight-hour day is established as to Government work a manufacturer doing both civilian work and Government work will be compelled to pay the same rate of pay to those engaged on private work. Since a great many concerns are doing both Government and private work, the application of the provisions of the Executive order to the work done for the Government will have the effect of disturbing the conditions in their factories, upsetting the well-developed organization of some of the most important factories of the country, which are now at their maximum of efficiency, and thus interfering with the production of the articles needed by the Government.

### 6. RECOMMENDATION.

No remedy that can be suggested to-day is without its attendant difficulties. Rarely do we have a clear-cut issue between what is right and what is wrong or between what is beneficial and what is detrimental. In nearly all cases the problem presented calls for a balancing of conveniences and inconveniences which will result from a proposed solution. On the one hand it is desirable to eliminate a great cause of labor trouble, put an end to a sense of injustice in the workers resulting from what must to them appear to be an arbitrary discrimination, and finally make possible and effective any



action of the Policies Board standardizing wages of different classes of workers employed upon Government work. On the other hand, it is very important in this crisis not to interfere with the normal and effective flow of the production of the supplies needed by the Army.

The committee therefore recommends—

(1) That as heretofore all mechanics and laborers employed by the Government directly should be paid upon a basic day rate of eight hours, with overtime paid for at the rate of time and one-half.

(2) That mechanics and laborers employed upon work of construction shall be paid in the same way.

(3) (a) While a uniform application of the wage provisions of the Executive order of March 24, 1917, to all work done by the Government will tend to eliminate one of the most serious causes for labor trouble, such action, if taken, at the present time will seriously interfere with and hamper the Government departments in securing the supplies needed in the prosecution of this war.

(b) That conferences be had between this committee and the manufacturers engaged in producing Government supplies to consider to what extent during the pendency of this war the adoption of the basic eight-hour day principle of determining wages is feasible.

(c) That pending such conferences the wage provisions of the Executive order be applied as heretofore to all cases where existing law requires it.

(d) That in cases where the Executive order is applicable a clause be inserted in the contract requiring compliance with its provisions. The clause should be in the form hereto annexed. This will definitely inform the contractor whether he is required to comply with the Executive order or not; and

(e) In order to secure uniformity of the decisions among the different departments of the Government the present committee be continued and all departments be directed to refer to this committee all communications calling for the construction of the eight-hour law of 1912 and the Executive order of March 24, 1917, or complaints with regard to the applicability of the Executive order to any particular contract.

SAMUEL J. ROSENSOHN,

*Counsel to the Committee.*

#### EIGHT-HOUR CLAUSE.

#### EIGHT-HOUR BASIC DAY, TIME AND ONE-HALF FOR OVERTIME—DAMAGES FOR VIOLATION.

Wages of laborers, operatives, and mechanics doing any part of the work contemplated by this contract in the employ of the contractor shall be computed upon a basic day rate of eight hours' work, with overtime rates to be paid for at not less than time and one-half for all hours in excess of eight hours. Compliance by the contractor with the provisions of this article shall be of the essence of the contract.

#### WAGES OF GERMAN MINERS.

The *Vorwärts*<sup>1</sup> quotes from the *Rheinische Korrespondenz*, published by the Protestant pastor Wahl of Essen, the following paragraph of an article on the income of workmen's families:

The wages of heavy and heaviest workers in Germany have gradually climbed to dizzy heights. It is, for instance, known that one workman's family, in which the

<sup>1</sup> *Vorwärts*. Berlin, Apr. 11, 1918.

father, three sons, and one adult daughter are wage earners, has a monthly income from earnings amounting to 2,000 marks (\$476) in round figures. Daily wages of 15 and 20 marks (\$3.57 and \$4.76) and more are common here. It can easily be imagined what the consequences are of these high wages. Some workmen, to be sure, make rational use of their present prosperity, as is evidenced by the large increase of savings bank deposits; others, however, particularly juvenile workers, do not know what to do with their large earnings and spend them in the most frivolous manner. Juvenile workers have been seen to frequent high-class wine restaurants where they drink French champagne, and light their cigarettes with 5-mark bills.

In commenting on this paragraph the *Vorwärts* says that the best rebuttal of this fanciful tale may be found in the official report on miners' wages in Prussia published on March 25 in the *Reichsanzeiger*. According to this report the average wages of mine workers, after deduction of working expenses and insurance contributions, varied for the second quarter of 1914 and the last quarter of 1917, as follows:

AVERAGE WAGES, PER SHIFT, OF MINE WORKERS IN PRUSSIAN MINES FOR THE SECOND QUARTER OF 1914 AND THE LAST QUARTER OF 1917.

Class of workers.	Second quarter, 1914.	Last quarter, 1917.	Per cent of increase.
	<i>Marks.</i>	<i>Marks.</i>	
Miners proper.....	3.69 to 6.19 (\$0.88 to \$1.47)	6.31 to 11.81 (\$1.50 to \$2.81)	71.0 to 90.8
Other workers employed below ground.....	3.17 to 4.99 (\$0.75 to \$1.19)	5.19 to 9.02 (\$1.24 to \$2.15)	60.7 to 83.7
Adult workers employed above ground.....	3.05 to 4.41 (\$0.73 to \$1.05)	5.27 to 8.35 (\$1.25 to \$1.99)	72.8 to 89.3
Juvenile workers.....	1.24 to 2.00 (\$0.30 to \$0.48)	2.77 to 4.35 (\$0.66 to \$1.04)	111.5 to 123.4

In view of these official data the wages of miners and their wage increases have moved within very moderate limits and all the clamor about excessively high workmen's wages in Germany seems unfounded. The wages of the best remunerated mine workers, the miners proper, show an increase of between 71 and 90.8 per cent, those of other mine workers below ground of between 60.7 and 63.7 per cent, those of adult workers above ground of between 72.8 and 89.3 per cent, and those of juvenile workers of between 111.5 and 123.4 per cent. Apparently juvenile workers have received the largest per cent of wage increase, but it should not be forgotten that before the war the wages of juvenile mine workers were exceedingly low and that during the war these workers have in many instances been employed below ground at work formerly performed at much higher wages by adult workers. Considering the grade of work at which juvenile workers are now employed it is therefore questionable whether their wages have increased in proportion to the work performed by them. Generally speaking this has not been the case.

In part, wages are still below the promises made to the workmen. In the Rhenish-Westphalian mining district, for instance, the work-

men were promised that the average wage of miners proper would reach 12 marks (\$2.86) per shift by November, 1917, but the official statistics for the fourth quarter of 1917 show that their average wage was but 11.51 marks (\$2.74). In the State mines of the Saar district miners proper had been promised an average wage of 10.5 marks (\$2.50) per shift beginning with October 1, 1917, but according to the official statistics their average wage during the last quarter of 1917 was 10.3 marks (\$2.45). The mine workers employed in the 16 mining districts of Prussia during the second quarter of 1914 numbered 767,177 and their total wages amounted to 269,826,362 marks (\$64,218,674.16). In the last quarter of 1914 the total working force was 652,258 and the total amount of wages 403,450,923 marks (\$96,021,319.67), i. e., the number of workers had decreased by 114,919, or 15 per cent, and the total amount of their earnings had increased by 160,624,561 marks (\$38,228,645.52), or 59.5 per cent as compared with the figures for the second quarter of 1914. It should, however, be considered that during the second quarter of 1914 the number of shifts per worker was 76 as against 82 during the last quarter of 1917. This fact should also be taken into account in comparing the quarterly earnings per worker which for the second quarter of 1914 amounted to 352 marks (\$83.78) and for the last quarter of 1917 to 659 marks (\$156.84). The average wage per shift and per worker increased during the same period from 4.65 marks (\$1.11) to 8.04 marks (\$1.91), or 72.9 per cent.

A further fact to be considered in comparing the above data on miners' wages is that owing to the war the composition of the working force has changed considerably and also that the wages of war prisoners employed in mines have not been included in the official computation. But even if all these circumstances are duly weighed, the fact still remains that wages have not kept step with the increased cost of living. In the 16 mining districts of Prussia the wages of all the mine workers have on an average increased by 72.9 per cent during the three and one-half years under review, while the cost of living has increased more than 200 per cent.

In conclusion the Vorwärts asks:

Are not agrarian papers like the *Deutsche Tageszeitung* making themselves ridiculous when they seriously assert that the high prices of food are due to the high wages of the workmen? And such stupid assertions are even reprinted in the *Deutsche Arbeitgeber-Zeitung* (German Employers' Journal) which probably reprints them in order to divert public attention from the fabulous war profits of the German industrial establishments. Such tricks are, however, too coarse to deceive the public any longer.



**HIGH COST OF LIVING BONUSES TO PRIVATE SALARIED EMPLOYEES IN ITALY.<sup>1</sup>**

The *Gazzetta Ufficiale* of March 23, 1918, gives the text of a vice-regal decree, No. 349, making it obligatory for private establishments to grant high-cost-of-living bonuses to their salaried employees during the period beginning April 1, 1918, and ending six months after the conclusion of peace. The decree is applicable to all private salaried employees living in communes with a population not in excess of 40,000 inhabitants and with a monthly salary not in excess of 250 lire (\$48.25), or to those with a salary not in excess of 350 lire (\$67.55) who live in communes with a population of between 40,001 and 90,000 inhabitants, and to those with a salary not in excess of 450 lire (\$86.85) who live in communes with a population of more than 90,000 inhabitants.

The decree provides that the bonus shall be computed on the basis of an allowance of 40 per cent for the first 100 lire (\$19.30) of the monthly salary and of 20 per cent for the next 100 lire. The part of the salary in excess of 200 lire (\$38.60) is not to be considered in the computation of the bonus.

The present decree abrogates the vice-regal decree, No. 1448, of September 2, 1917, which formerly regulated the bonuses of private salaried employees. Its provisions are not applicable to employees of the State, local authorities, and other institutions subject to Governmental supervision, nor to those of public-service corporations whose salaries are regulated by law and by regulations approved by the State.

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**JAPANESE FACTORY LAW IN ITS RELATION TO WEAVERS AND MATCH MAKERS.**

This bureau has received, through the State Department, from the United States consul general at Yokohama, Japan, a copy of the following article taken from the *Japan Chronicle* of June 20, 1918, relating to the efforts being made to secure a revision of the law in regard to working hours of women and of children under 15 years of age.

"The factory law promulgated on September 1, 1916, prohibited the employment of boys under 15 years of age and girls and women for a period exceeding 12 hours a day, but provided that in the weaving and knitting industries the working hours may be extended up to 14 hours during the two years following the promulgation of the law. This period expires on September 1 next, and last spring the employers concerned throughout the country addressed a memo-

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<sup>1</sup> *Bollettino del Comitato Centrale di Mobilitazione Industriale*. No. 10. Rome, April, 1918. p. 147.

rial to the House of Representatives asking for a revision of the law so that the working hours for small boys and female operatives can be extended up to 14 hours for the next 3 years, and to 13 hours during the 10 years following. At the same time they started a movement to carry their point with the help of certain politicians, but it was strongly opposed by the Government, especially by the military authorities. The memorial was referred by the Diet to the Cabinet, which has been since considering it. The authorities have now decided to reject the memorial, and this decision has been communicated to local authorities throughout the country under date of the 17th instant.

"From September 1 next the working time for boys under 15 years of age, girls, and women will be accordingly reduced from 14 to 12 hours. It is reported, however, that factory owners will again memorialize the Government asking it to postpone the execution of curtailment of working hours.

"Under the factory law children of 10 to 12 years of age are allowed to be employed for such light work as putting match sticks in boxes, wrapping up boxes, and pasting labels at match factories, but in the case of factories where phosphorus matches are manufactured the employment of such children is restricted to the two years following the promulgation of the factory law, their employment being prohibited from September 1. Some time ago phosphorus match manufacturers in the neighborhood of Kobe and Osaka appealed to the Government to postpone the execution of the prohibition for another two years.

"In this connection an official recently came down from Tokyo to Osaka and Kobe, and it is reported that the authorities will reject the appeal. Not only this, but it is further reported that the Government may prohibit the manufacture of phosphorus matches. \* \* \* This branch of the match industry in this country has been on the decline of late years, chiefly because of the development of a similar industry in China, which has become the principal buyer of Japanese phosphorus matches. Nevertheless, the annual output of these matches in this country amounts to 110,000 to 120,000 cases a year, there being two factories each at Shikama, Awaji, and Iwaya, one at Itami and Kobe, three at Amagasaki, and 14 in Osaka-fu."

## MINIMUM WAGE.

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### MINIMUM-WAGE DECREES IN MASSACHUSETTS.

On Monday, July 1, the Massachusetts Minimum Wage Commission approved the determinations of the wage board established by the commission last fall to recommend weekly minimum-wage rates for women and girls employed in muslin underwear, petticoat, apron, kimono, women's neckwear, and children's clothing factories. This is the fourth decree entered by the commission relating to the wages of women in the garment trades, and took effect August 1, 1918. The scale is as follows:

\$9 for experienced workers (i. e., those who are 18 years of age or older and have had at least 1 year's experience in the needle trades, at least 6 months of which has been in the factory in which she is for the time being employed).

\$8 for workers 18 years of age or older who have had at least 6 months' experience in the needle trades.

\$7 for workers 18 years of age or older who have had at least 3 months' experience in the needle trades.

\$6 for workers irrespective of age who have had less than 3 months' experience in the needle trades.

For the purpose of computing weeks of experience, a week's work shall consist of not less than 36 hours.

In order to enable employers to show compliance with this decree the commission recommends that, in addition to keeping, as required by Acts of 1912, chapter 706, section 11, a register of the names, addresses, and occupations of all women and minors employed, together with a record of the amount paid each week to each woman and minor, employers in this occupation keep also a record of the hours worked by each of such employees each week and of the age and length of experience of apprentices.

To assist employers in carrying out the provisions of the decree with regard to apprentices the commission further recommends that a female employee on leaving her employment in any establishment receive a card showing the time she has worked in that establishment.

The commission, on the same date, approved the determinations of the retail millinery wage board as follows:

\$10 per week for workers 19 years of age or over who have had at least 4 seasons' experience in millinery workrooms, which shall include 16 weeks in a fall season or seasons, and 16 weeks in a spring season or seasons, and in the case of apprentices entering the trade at 15 years of age or younger shall include at least 12 weeks in the next preceding season.



\$7.50 for workers 18 years of age who have had at least 3 seasons' experience in millinery workrooms.

\$6 for workers 18 years of age or over who have had at least 2 seasons' experience in millinery workrooms.

\$4.50 for workers irrespective of age who have had at least one season's experience in millinery workrooms.

\$3 for workers irrespective of age who have had less than one season's experience in millinery workrooms.

For the purposes of this decree a season shall consist of at least 12 weeks, but if an employee works at least 8 weeks but less than 12 weeks in any season the difference between the time she has worked and the required 12 weeks may be made up in any following season.

For the purpose of computing weeks of experience, a week's work shall consist of not less than 36 hours.

These recommendations go into effect August 1, 1918, and apply to all women and girls employed in the making and trimming of millinery for the retail trade, including those employed in the millinery workrooms of department stores.

The same provisions as in the garment trades apply to the keeping of records and the issue of employment cards.

The commission also announces that it has provisionally approved the following rates proposed for office and other building cleaners:

1. The minimum wage to be paid to any female employee as an office or other building cleaner shall be as follows:

- (a) Between the hours of 7 p. m. and 8 a. m., 30 cents an hour.
- (b) Between the hours of 8 a. m. and 7 p. m., 26 cents an hour.

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#### MINIMUM WAGE FOR LAUNDRY WORKERS IN MANITOBA.

As noted in the MONTHLY LABOR REVIEW for August (p. 212), provision for the creation of a minimum wage board was made in the Manitoba Minimum Wage Act of 1918, this board to have power to make awards as to minimum wage, hours of employment, and conditions of labor for female employees in mail-order houses, shops, and factories within the Province. The board, composed of five members, recently completed an investigation of the laundry industry, as a result of which a conference was arranged between three representatives of the employers, three representatives of the women laundry workers, and the members of the board with a view to fixing a minimum wage for women workers over 18 years of age. Following the conference announcement was made that \$9.50 had been established as the minimum wage, which was based on a cost of living schedule drawn by the board and approved by the conference showing \$493.25 per annum or \$9.48 per week, as the estimated minimum

wage upon which girls could live decently. The Canada Labor Gazette for July (p. 537) contains a brief account of the investigation, including the schedule referred to, as follows:

Board and lodging, \$5.50 per week.....	\$286. 00
Footwear and repairs.....	20. 00
Stockings.....	4. 00
Underwear and nightgowns.....	10. 00
Petticoats.....	4. 25
Suit, at \$25 (coat and skirt to last two years).....	12. 50
Coat and possibly summer suit at \$25 (to last two years).....	12. 50
Dresses and aprons.....	15. 00
Shirt waists.....	6. 00
Handkerchiefs.....	1. 25
Corsets.....	4. 00
Gloves.....	2. 25
Corset waists.....	2. 00
Neckwear.....	1. 00
Hats.....	10. 00
Umbrella.....	1. 00
Sweater, at \$7.50 (to last three years).....	2. 50
Laundry.....	15. 00
Doctor and dentist.....	15. 00
Street car fares.....	20. 00
Magazines and postage.....	5. 00
Association dues and insurance.....	8. 00
Recreation and amusements.....	18. 50
Church and contributions.....	5. 00
Incidentals.....	12. 50
Total for the year.....	493. 25
Total weekly expenditure.....	9. 48

#### Continuing the Labor Gazette notes that—

In the case of inexperienced employees of 18 years of age or over a probation period of six months is allowed, in which the minimum wage shall be \$8 for the first three months and \$9 for the second three months, after which they shall be considered as experienced employees. In the case of employees under 18 years of age a probation period of 18 months is allowed, in which the minimum wage shall be \$7 for the first six months, \$7.50 for the second six months, and \$8 for the third six months. After 18 months' employment such employees shall be paid at the experienced rate of \$9.50 a week. These concessions were given the laundries because of the huge increase in the cost of doing business, also the competition of the Chinese laundries which are held down [to] no standards of hours, wages, or conditions of labor. It is also stipulated that the wages shall be paid weekly; and that one week's notice shall be given by the employer in dismissing an employee and by the employee on leaving employment; except in the case of flagrant insubordination or unjust treatment. The findings of the board also provided for shorter hours of labor in laundries, for improvements in lighting, ventilation, cleanliness, and protection from injury.

## MINIMUM WAGE LEGISLATION IN NORWAY.

A law of February 15, 1918, which took effect July 1, creates for Norway a home workers commission or board (*Hjemmearbeidsraad*). The fact that the law continues in effect only five years—i. e., to June 30, 1923—suggests the experimental nature of the legislation. The commission is composed of a nonpartisan chairman and vice-chairman and at least two additional members, but not more than four, representing equally workers and employers in the trades within the scope of the act. Women may be appointed to membership by the Crown equally with men. Special wage boards are to be established in the trades covered whenever the commission deems it advisable or upon request of at least six workers or employers in any trade. These wage boards may be appointed for a single trade, for the related branches of a trade, for a locality, or for a group of localities. The wage boards follow the same principle of representation in their membership as does the home workers commission and are to be composed of not less than four members and a chairman and vice chairman. They are appointed by the local municipal authorities, except the chairman and vice chairman, who are appointed by the commission. Interested organizations of home workers, employers, and others are to nominate candidates for membership. Their expenses are paid out of local funds. When the wage boards cover more than a single locality their expenses are shared by the localities pro rata to population, and in some instances in small towns the State shares expenses.

The home workers commission is given authority to investigate and study labor conditions in all places where home work is carried on, to recommend legislation, and to fix minimum wages in certain limited occupations. Home work is defined as "industrial work which is done for compensation for an employer or intermediary (*mellemand*), provided the work is done in the home of the worker, or in another place where the employer does not exercise authority in the matter of the working regulations, or if performed at the establishment of the intermediary." The commission itself decides whether any occupation or trade is within the scope of the act. The authority of the commission in the matter of fixing minimum wages is limited to home work in the manufacture of clothing and articles of needlework. Subsequent governmental regulations will define such trades, and may also add other trades and occupations. If the home workers commission finds wages inadequate in any of the trades specified it appoints a wage board to fix minimum wages, and the award of such board is subject to modification and revision by the commission before being published and put into effect. The rates may be re-



vised at any time during the continuance of an award if it is found that the award is adversely affecting the workers in a trade or if home work is being displaced as a result of the award.

In fixing minimum rates consideration is to be given to the customary rates in any locality for the same or similar work, and the existing relationship between the rates in factory and home work so that factory work may not come to displace home work. The earnings of a worker of average ability are to be taken as the standard. Piece rates may also be fixed by wage boards.

Every employer and intermediary is required to keep a separate register of home workers employed, the list to be filed each year with the local inspecting authorities and with the commission. Lists containing particulars as to minimum wages are also to be conspicuously posted for the home workers, and a pass book is to be supplied to each worker showing particulars as to work, wages, payments, deductions, etc. Accounts are to be settled in cash, preferably weekly, unless other arrangements are made by agreement.

Home-work inspection is to be performed by the local health authorities if the work is done in the home of the worker, otherwise by the local factory inspectors. The home workers commission may prohibit work dangerous to health if done in rooms used also for dwelling purposes, or it may even entirely prohibit such work regardless of where performed.

Breaches of the law are subject to fines, but the amounts are not specified.

## WOMEN IN INDUSTRY.

### WOMEN IN THE MECHANICAL TRADES IN THE UNITED STATES.

BY MRS. V. B. TURNER.

There are approximately 36,000,000 workers in the United States 3,000,000 of whom will soon be under arms. This number will doubtless be increased to 5,000,000; and possibly to more. It is variously estimated that it takes from four to five persons in industry to maintain one soldier in the field. Assuming the more conservative estimate, 25,000,000 from a possible 36,000,000 industrial man power will be used for war purposes alone, leaving only 11,000,000 to do the other necessary work.<sup>1</sup>

Those who claim that there is now no labor shortage in the essential industries admit that should the war continue provision must be made to meet such a shortage. Even now there is a scarcity of mechanics; and when the available skilled workmen are judiciously distributed and effectively used, women will, as they have done in England, France, Italy, and in some instances in the United States, take men's places in increasing numbers. Work at the bench, the lathe, or the milling machine will come to be a part of their share in the struggle.

The English experience so comprehensively set forth from month to month in the Dilution of Labor Bulletin of the Ministry of Munitions shows women successfully engaged in numerous processes in the engineering trades, from the most delicate precision work to running engines and setting up their own tools. An eminent Frenchman says of the women of France, "There is no line of mechanics in which our women have not become proficient since the men have gone to war."

Even in the United States women are not an entirely new element in the mechanical trades. Some machine companies have employed women for years. One company has employed them on light machine riveting and assembling operations for six years; another has employed them for 15 years on heavy work—presses, drilling machines, etc.—and has found them as skillful as men.<sup>2</sup> It is not so much a question of what they can do, as of what they ought to do and how they should be trained to do it.

<sup>1</sup> F. C. Walcott. Division of Miscellaneous Activity of the Federal Food Administration. New York Times Magazine, July 21, 1918.

<sup>2</sup> Iron Trade Review, Cleveland, Jan. 17, 1918, pp. 203-212.

## TRAINING IN ENGLAND AND FRANCE.

England met the question of the training of workers by organizing two classes of training establishments—training schools attached to various technical colleges that exist in most industrial centers, and factories taken over by the Ministry of Munitions, equipped as instructional plants in which actual munition work is done. The training, which is specialized on particular types of machines, produces a considerable degree of skill in from six to eight weeks, and has on the whole proved very satisfactory.

In France where one-third of the employees in the munition factories are women and where in plants engaged on light mechanical work women constitute two-thirds of the force, the Government early in the war required the establishment of training courses in all workshops employing 300 persons, the instructors being skilled men chosen from the shops. After this instruction the women are put at work on the machines, and some have gone to the tool room and have become expert mechanics.

## TRAINING IN THE UNITED STATES.

Some companies, The Gisholt Machine Co., Madison, Wis., and the Norton Grinding Co., Worcester, Mass., for example, have had excellent training courses in their factories for a number of years, but it is only recently that the courses for short and intensive instruction have been multiplied on every hand to meet the demand for war material. Public and endowed vocational schools, colleges, and universities are doing much, but their facilities are too limited to furnish the required number of workers.

Profiting by foreign experience, many companies are now making provision to prepare women for machine work through various kinds of intensive mechanical training. In some shops (noticeably in the smaller ones) the women are trained at the machines by experienced machinists. The larger factories in many instances are establishing what are known as "vestibule schools." Under this plan machinery is installed in a reserved section of the factory proper or in a separate building which is a part of the plant. In these instruction rooms working conditions are reproduced as nearly as possible, so that the women may not only absorb a little of the shop atmosphere and conquer the timidity induced by new work in unusual surroundings but also acquire some degree of skill before beginning work in the shop.

One company (Browne & Sharpe Manufacturing Co., Providence, R. I.), which has employed women for over a year, describes its training as follows:

The method pursued by the company for introducing the employment of women into their machine department was to set aside one corner of a room for training. Six



girls were employed and each taught a different operation, selecting, first, operations which seemed most suitable for such employees.

When they had become sufficiently proficient so that their production was on a commercial basis, they were transferred to the departments of the shop where such work as they had been taught was being done and occupied places among the regular workers. Within a few days a second girl was put beside each of these, and this gave not only a sense of companionship but served as a stimulus to both girls, to the first to set the pace and to the second to keep up or excel \* \* \*. Additional girls were added as rapidly as they could be assimilated and their employment has since spread to all parts of the shop \* \* \* except the foundry.<sup>1</sup>

By May 30, 1918, this factory had, in 10 months, placed 800 women, who are successfully doing work as follows:

Inspection, grinding (cylindrical as well as tool), lathes, screw machines (hand and automatic), small planing machines, hand lathes doing polishing and hand-tooling work, gear-cutting machines, blue-print room, stamping, filing, assembling of small-tool parts, and general bench work, all being within the physical ability of the average woman.<sup>2</sup>

An increasing amount of tool sharpening and tool setting is also being done by the women employed by this company.

The training department in a factory in the Middle West (the Recording & Computing Machines Co., Dayton, Ohio), employing 8,600 people, 5,000 of whom are women, is interesting not only from the character of the work and the number employed, but also from the broad-minded policy which has been adopted.

The company is engaged in making the Russian type of combination fuses. The works manager says:

The character of the work is of the closest, the limits running as low as five ten-thousandths of an inch. The requirements for precision work on this fuse are very severe. The metals used are brass and aluminum—this latter being a particularly difficult metal to work.

\* \* \* The training department was located in a well-lighted room, away from the factory, and placed therein were all of the different types of machines upon which training was necessary. There were also benches and fixtures necessary for the learning of assembling and inspection. I placed at the head of this school one of my most expert mechanics and operators, being particularly careful to select a man who was a gentleman and who could get along well with the women. In all cases where women were taught the teachers were women. I selected women for teachers so that when the new girl employee came into the training department her very first experience would be meeting women teachers. Invariably this woman employee immediately made up her mind that if these women could do the work so could she. The women teachers were selected with care, thought being given not only to their skill as operators but also to their capacity as teachers.

The employees were first selected with care by the employment department for the different classes of work that they were supposed to do, it being evident that some women were well fitted to handle certain heavy machines, while others could handle only the light machines.

The system of teaching was well standardized. The teacher handled from three to five girls at one time, depending upon the nature of the work she was teaching. She

<sup>1</sup>Machinery, New York, April, 1918, v. 24, p. 682.

<sup>2</sup>American Machinist, New York, May 30, 1918, v. 48, p. 910.

first explained the character of the metal in the part and the kind of tools that were used, going over carefully with each employee the work that each tool was supposed to do—the machine being operated in order to illustrate each point. The girls were then permitted to start the work themselves, and each time they made an error they were corrected in the most kindly manner and encouraged in every way to do their best. Note again that we trained them to become skilled only upon one particular job. The general mechanical knowledge came to them as they worked in the shop.<sup>1</sup>

If the employee was found unsuited to her particular task she was shifted from one operation to another until she was rightly placed. The operator was taught the use of gauges as well as of the different tools, was paid 20 cents an hour during the instruction period, and usually spent from 3 to 10 days in the training department, according to the operation being learned. In 10 days this system of training turned out girls who could operate heavy hand turret lathes on work requiring great precision, and who in three weeks could begin to earn the bonuses under the graduated bonus system of pay employed by the factory. As a concrete example of the results of this training the following data are given:

We produce our base forgings of aluminum on heavy hand turret screw machines. On this particular forging there are 56 gauging points. The allowable limits range from five ten-thousandths of an inch to two-thousandths of an inch. In January, 1916, the average production of 31 women employees was eight pieces per hour. \* \* \* My experiment showed that there should be produced from these machines as a fair production an average of 35 pieces per hour. We put our old operatives into the training department, and within four weeks after the old and new operatives had been through this training department the average production was raised to over 25 pieces per hour, and to-day the average is over 55 pieces per hour. The same results were obtained on all our work, such as machining, inspection, and assemblage.

\* \* \* Two sets of prominent engineers who investigated the possibilities of production from this plant reported that the best possible output from the assembly division was 15,000 complete fuses per day in two shifts. Thoroughly trained girls have been able to reach an average production of 38,000 per day in one shift.<sup>2</sup>

Five principles of training and shop management followed in this factory are:

*First.*—A method of training the operatives in the training department in order that they may reach a fair average production on each operation. This fair average production should not be the highest possible rate of production, as shown by a highly skilled operative, but should be a rate of production that the average operator can reach after becoming skilled without undue stress or strain.

*Second.*—A method of continuing the training in the shop through the job bosses and, in some cases, through special shop instructors.

*Third.*—A system of organization that compels the subordinate and also the directing heads of departments to give attention to the poor, inefficient workers, and so train them to be better workers. This will include factory systems which will make close supervision of these conditions possible.

<sup>1</sup> National Association of Manufacturers. Report of Committee on Industrial Education. New York. May, 1918, pp. 26-29.

<sup>2</sup>Idem., pp. 31-32

*Fourth.*—A fair and generous system of pay which will reward the employee for reaching higher rates of production. This should be based upon the rule that a woman should get as high a rate of pay as a man for the same production. The system of pay should provide bonuses that the average operative can earn even when producing less than the number of pieces per hour shown as possible.

*Fifth.*—A system of supervision that will prevent operatives overworking or straining themselves through attempting to work too hard in order to earn high bonuses.<sup>1</sup>

The Bethlehem Steel Co., Bethlehem, Pa., has two different types of training schools in operation for new women workers.

School No. 1 is a separate building equipped with necessary machines and tools. The new workers are brought into this building and assigned to skilled mechanics of known ability who act as instructors. These instructors teach the proper method of doing the work. The new workers are taught to operate any of the following types of machines: Drill presses, gun-boring lathes, turret lathes, planers, shapers, milling machines, and to do bench work.

As soon as they develop ability in the training school to handle themselves with a certain degree of skill they are placed in the production shops at the kind of work for which they are trained. Supervision over them is exercised in the production shops until they complete their training. In the training school the instructor will have from four to eight new workers under his instruction. In the shops the instructor may have as many as 12 to 15 under his supervision.

School No. 2 is located in the production shops. A number of machines are set aside. New workers are placed at the machines and an instructor is placed in charge. Schools Nos. 1 and 2 are under the direction and supervision of the training department of the Bethlehem Steel Co.

All women learners are given the rate of 25 cents an hour while in training. This rate is increased to 29 cents an hour as soon as the learner develops ability to handle production work. The bonus system enables workers to earn from \$4 to \$6 a day, and in some cases even more than \$6 a day.

The nature of the work in the shops makes it necessary to train women to become all-round machine operators or bench hands—that is, they must be taught to perform a rather wide scope of work, including blue-print reading and use of precision-measuring instruments. In general, the women are given a broad training and not a training on specialized operations.<sup>2</sup>

It may be added that the company plans to upgrade many of their present force of skilled and semiskilled men to more difficult operations and to advance the apprentices by intensive training.

The training room established for the instruction of women by a company building Liberty motors (Lincoln Motor Co., Detroit, Mich.) is located in the smaller of its two plants, in a room approximately 18 by 40 feet and is equipped with a lathe, milling machine, gear cutter, drill press, profiler, etc., these being the tools upon which it was decided to train operators.

The instructor placed in charge of the training has had a short experience in a continuation school and is directly supervised by a "high grade specialist" from a well-known eastern factory efficiency organization.

<sup>1</sup> National Association of Manufacturers. Report of Committee on Industrial Education. New York. May, 1918, pp. 32, 33.

<sup>2</sup> U. S. Federal Board for Vocational Education. The Vocational Summary, August, 1918, v. 1, p. 8.



After a careful examination of their references, women from 21 years of age and upward are taken on, and are given training from one to three days in the school. While this period is not so long as is desirable, the demand for labor is so great that a longer time can not be used. It is found, however, that even this short experience takes away the fear of the shop and gives the women at least an elementary knowledge of the tools with which they are to work.

During the training and in the shop until they are placed upon a piecework basis women are paid 30 cents an hour (the regular rate for women). The company believes that the advantages of the vestibule school are so great that it will become a permanent institution in the factory and that men as well as women will be given instruction in it.<sup>1</sup>

#### QUALIFICATIONS.

Women have been recruited from all trades, conditions, and nationalities. One company employing thousands of women in munition processes reports its force as being largely made up of school-teachers, clerks, dressmakers, and girls doing general work both in homes and in factories. Another company with exceedingly well-organized work for women finds that girls who have had some experience in mills or in other work requiring endurance are best suited to its work. Girls whose fathers and brothers have been machinists often adapt themselves readily to mechanical processes, possibly as a result of this mechanical background and a familiarity with mechanical terms. Most firms have no choice between married and single women. One company, however, requires that its employees must not only not be married, but never have been married. There is a general agreement that women must be in normal health, and preferably between 20 or 22 and 35 years of age. Manufacturers claim that girls under 22 do not take the work seriously enough, while women over 35 have not sufficient suppleness of hand to become skilled in the lighter mechanical processes.

#### OUTPUT.

While it is clear from the instances given above that women respond readily to training and the result is a definite increase in production, it is difficult to obtain a reliable statement comparing women's output as a whole with that of men. In undertaking such a comparison certain factors should be considered. For instance, as a result of the redistribution of man power caused by the war the available supply of male labor is of an inferior grade, while the women who are entering industry are a relatively high grade of workers. The introduction of

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<sup>1</sup> Summarized from Bulletin No. 120, of United States Council of National Defense.

women into certain kinds of work is so recent that it is too early to judge as to the effect of their employment upon output. Opinions of employers seem to vary with the nature of the work.

The experience of a British national shell factory is an example where markedly greater output was secured by the substitution of unskilled for skilled labor. The case in question was that of producing 9.2 inch Mark IX H. E. shell, and the Dilution of Labor Bulletin of December, 1917, page 41, says, in comment upon the table of comparative output shown: "It will be seen that whereas the complete boring of the shell required 3.16 machine-hours when done by skilled men, it was accomplished in 3.6 hours by women after only one week's practice, and within two or three months the women had reduced the time to 1.25 hours, thus increasing the output to two and a half times its previous figure." In the November number of the same bulletin, Mr. Ben H. Morgan in an address on the "War effort of women" says: "Comparing, for instance, our women's figures of output on certain sizes of shell and types of fuses with those of men in the United States, I found recently that the women's machining times were not only as good but in many cases better than those of men in some of the best organized American shops."

While the information at hand is not sufficient to permit of a comprehensive discussion of the effect of the substitution of women upon output, the following statements, brought together from such published data as are available at this time, are of interest as representing the conclusions of certain employers in the United States who have introduced women into their establishments.<sup>1</sup>

In one small factory, in which a very successful experiment in employing women is being tried, "girls with from five to six months training (in the simplest way on the machines) turn out in quality and quantity an amount of work equal to about 75 per cent of that of the average man employed; but it is confidently expected that when completely trained they will show 110 per cent efficiency as compared with men."<sup>2</sup>

<sup>1</sup> Since this article was written there has appeared a report of the National Industrial Conference Board on "Wartime Employment of Women in the Metal Trades" (Research Report No. 8, July, 1918), which gives definite data gathered from 127 establishments employing 47,941 women as to the output and wages of women in the metal trades. From 99 of these establishments statements were obtained regarding output of women as compared with that of men. In summarizing these statements the report makes the following comment: "The output of women compares favorably with that of men, since it appears that in 30 establishments \* \* \* the output of women was greater than that of men in all operations on which both were engaged; in 6 it was greater in some, equal in others; in 30 it was equal to that of the men. In other words, in 66 establishments, or two-thirds of those furnishing definite information as to output, women's production was equal to or greater than that of men in the operations on which both were employed. In only 15 establishments was it found that women produced less than men in all operations on which they were engaged. Their production in the remaining 18 establishments, although less on some operations, was equal or greater on others." This report will be treated at length in an early issue of the MONTHLY LABOR REVIEW.

<sup>2</sup> Machinery, New York, May, 1918, v. 24, p. 823.

A typewriter and comptometer company gives the following report of work in its shops: "On our 3-inch Gleason generators the largest day's production turned out by our best man operator on differential side gears was 91 pieces, and on differential pinions 260 pieces for a 9-hour day. The slowest woman operator in point of production equals the best man's day's production, and our speed merchants, as we call them, turn out 126 side gears and 320 differential pinions for a 9-hour day, an increase of 35 side gears and 60 differential pinions. On our 24-inch Fellows gear-shaping machines the women turn out from 20 to 30 pieces more in a 9-hour day than the men. \* \* \* In our drilling machine work they have increased the production 1,200 pieces in a 9-hour day. \* \* \* One woman drills two  $\frac{5}{32}$  inch oil holes  $\frac{1}{4}$  inch deep, and  $\frac{1}{8}$  inch oil hole  $\frac{3}{8}$  inch deep, in 246 stem gears in 9 hours, \* \* \* 50 more pieces than the men have ever turned out."<sup>1</sup>

In contrast to this report, the Lincoln Motor Co., while admitting that women are doing very good work, finds that women are not greater producers than men on their work; they are possibly a little slower than men, but their apparent slowness is more than offset by their conscientious attention to detail, the percentage of waste being extremely low.

The foreman of another company employing about 800 women, says, "If we had given the same kind of attention to each new man employed, he would have done as well as the girl," and adds that the men employed were irresponsible, as few trained men were available, while it was possible at the time the comparison was made to secure a much better class of girls.

#### HOURS AND WAGES.

Hours and wages also vary with different companies and in different States. The working hours run from an 8-hour to a 9-hour day. Women are found more effective on the 8-hour schedule than when employed on longer shifts; on daywork than on night work. There should, if possible, be no overtime or Sunday work for women, the lunch hour should be liberal, and rest periods in the middle of the forenoon and of the afternoon have been found advantageous.

In the cases studied a spirit of fairness seems to prevail regarding wages, one company only being an exception to the rule. Some companies employ the principle of "equal pay for equal work"; others pay women a regular hourly rate until their efficiency becomes such that they are placed on a piecework basis and are thus given an opportunity to earn as much as the men workers. In one large company (Dayton Recording & Computing Machines Co.) a graduated bonus system for all workers provides an excellent stim-

<sup>1</sup> American Machinist, New York, Feb. 7, 1918, v. 48; p. 241.



ulus for good work. By this system "the operatives earn a fair bonus at the lower production points which increases as they increase production."

There is a unanimity of opinion among employers that good wages during the learning period are a paying investment. The period is short, the women are encouraged to keep on, thus avoiding labor turnover, and, as the output must all pass the inspection test, the extra amount expended in wages is negligible as compared with the price received for the material or the cost of hiring new workers.

The company making a marked discrimination against women in the question of wages started the women in on the rate usually paid boys. When it became apparent that this wage would not hold the women, because it was too small for them to live on, the matter was taken up with the cost manager, who, "finding the production from women's labor considerably more than from men's, immediately gave all women workers an advance in wages, at the same time setting a new starting rate and a schedule of two raises for all women who made good." In writing of this situation the manager thinks it probable that, "as some of the women had advanced beyond the second raise and were far in advance of the men in production, they will be given due consideration when they reach the wage limit paid to men."

#### DIFFICULTIES MET IN EMPLOYING WOMEN IN SHOPS.

One of the objections to the introduction of women into machine shops is that in most instances some readjustment and reorganization (both in methods and in equipment) must be made to obtain the best results. These changes depend largely upon the character of the work, and have been neither so numerous nor so radical as might have been expected, and in some cases have proved advantageous from the standpoint of a more effective use of man power.

In order to retain the right class of women and to maintain a high standard of discipline, comfortable rest rooms, lockers, and other welfare provision must be furnished. One employer estimated that the expense entailed in providing such conveniences was \$25 per person, and that it was not a large amount compared with the results secured in comfort and contentment.

Objection is made that this work is too hard for women. It is readily admissible that some classes of it may be, and such cases should be rigorously guarded against. There is no conclusive evidence, however, that many of the machine processes are not lighter and less monotonous than washing, scrubbing, nursing, and other such time-honored employments of women, with their accompaniment of heavy lifting. If proper care is exercised in assigning work

suitable to the strength and capacity of the worker, there seems to be no valid reason why women should not do machine work as easily and safely as some work they have done and are doing.

The attitude of the men workers toward the employment of women in shops varies widely. One machine company, finding itself unable to fill its contracts on account of a great scarcity of men, decided to add to its force by employing women on the basis of the same pay for the same work. After the necessary changes as to welfare provisions, etc., had been made, a committee from the machinists' union notified the management of their "unalterable opposition to the employment of women in the shops in any capacity," giving as their reason that after the war the women would keep places which rightfully belonged to men. Rather than create any trouble the company gave up for the time the idea of employing women.

In most cases, however, where the men feel that women have been employed to supplement man power and that experienced men workers will be advanced to positions of instructors or to other work which only they can do because of their greater strength or better mechanical training, they have accepted the entrance of women as a matter of course or necessity and have cooperated in every way with the managers in teaching them the use of the machines.

#### CONCLUSION.

The question of the present employment of women in the mechanical trades is summed up by Mr. Donald G. Baker, who, from experience both in this country and in Canada, is familiar with the advantages and the disadvantages of it, as follows:

If women must be employed they should be paid equal wages for equal work. Their strength must not be unduly taxed, suitable conveniences must be provided for them, and the hours of labor restricted. In return, they will give higher production and lower operating costs.<sup>1</sup>

And Mr. A. W. Kirkaldy remarks:

In any case, it is clear that women in industry are capable of doing successfully not merely such unskilled work in laboring as their physical strength can compass, nor merely work of a repetitive or routine nature, but work of a much higher order, when they have had training for it. And it is also clear that, as they gain more experience, the limit of their industrial usefulness has not yet been reached.<sup>2</sup>

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#### ENGLISH EXPERIENCE WITH WOMEN IN HEAVY WORK.

The British Health of Munitions Workers Committee was appointed in September, 1915, and since that time the effect of the new conditions of employment upon women has been one of its

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<sup>1</sup> Machinery, New York, January, 1918, v. 24, p. 451.    <sup>2</sup> Industry and Finance, London, 1917, p. 41.

permanent subjects of study. There is special significance, therefore, in the fact that the Dilution of Labor Bulletin, issued monthly by the Ministry of Munitions, devotes much attention to the suitability of women for work hitherto considered too heavy for them. The general attitude taken in the bulletin is that while many kinds of work may call for an expenditure of energy "too continuous and too great for it to be desirable that women should replace men," very few kinds are, strictly speaking, too heavy for them. So much is this the case that definite advice is given for overcoming the objections of employers who consider that their work is too heavy to permit the employment of women:

It has often been found effective, when an employer or a works manager pleads the weight of the work as an excuse for not employing female labor, to ask him whether the men lift the work. He usually replies that the men do not do so, that the work is lifted by a crane, but that the machines on which the work is done are very heavy. On this one has to ask him whether he expects the man who is operating the machine to carry the machine about. He will possibly then take refuge in the fact that the cuts on the work are so heavy; and again one can ask whether the cut is taken by the operator or the machine. It will be found, in fact, almost always, that when the management of a factory is driven to pleading the weight of the work, or the weight of the machine, or the heaviness of the cut, as an excuse for not employing female labor, they are really in a bad way for want of an argument.<sup>1</sup>

In pursuance of the purpose of securing the greater employment of women, successive issues of the bulletin have many occupations cited in which women have been employed with good results, although much heavy work is involved. Several articles are devoted to their employment in gas and coke works. Here they stoke the furnaces, auger the pipes, push wheelbarrows weighing when loaded 3 hundredweight, weigh out the coke, load it into trucks, and deliver it in hundredweight sacks. In such occupations they are not expected to accomplish as much as the men whom they replace, but with this limitation their work is satisfactory and appears to agree with them:

It is to be observed that in spite of stoking having been regarded as doubtfully within their powers, it has turned out to agree very well with women. The change from men to women was started in the hot weather of June, and the health and physique of the women, according to their own statement, have improved since they took up the occupation.<sup>2</sup>

Other heavy occupations noted by the bulletin, in which women are employed are: Molding, in which the weight of the boxes handled varies from 25 pounds to 42 pounds; heavy laboring work in a sulphuric acid works, where the women are doing the full work accomplished by an equal number of men previously; unloading bags of nitrate weighing 2 hundredweight each ("they are handled by two women without difficulty and are run on trolleys to the elevator");

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<sup>1</sup> Dilution of Labor Bulletin, London, April, 1918, p. 99.

<sup>2</sup> Dilution of Labor Bulletin, London, March, 1918, p. 87.



sawing and barking operations in a paper mill, in which, "although some of the logs handled weigh 50 to 60 tons, and the work is fairly strenuous, it has not been found beyond the women's physical strength"; carrying steel bars and springs, some of which weigh from 50 to 60 pounds each, to different parts of the factory as they are needed; and ordinary heavy laboring work, such as digging and excavating. Apparently this last-mentioned work had been looked upon with special doubt, since the ministry considered it necessary to take public notice of the suggestion that the work might prove injurious to the health of the women engaged in it. Speaking at a public exhibition of women's work, the secretary to the Ministry of Munitions referred to this point as follows:

The suggestion, so far as it might be applied to the work that they had been doing habitually, was happily contradicted by experience. Some of the best fortifications in the north of England had been excavated by women navvies, formerly fishwomen from Scotland, and it was a matter of common observation that the physical development of women had improved beyond all knowledge since the war, and never had they seemed more fit to discharge all their functions in civil life.<sup>1</sup>

In munition work 60 pounds<sup>2</sup> is looked upon as the limit of weight a woman should lift without the aid of tackle. This applies in shell making and similar work where the object has to be put in position and removed after the turning operation is finished. (In France the maximum weight which women should handle in such operations has been fixed at 55 pounds.) The results of the experience of two or three years with women in such work were summed up in a recent address before the Institute of Mechanical Engineers:

Women can safely handle, in the course of machining and fitting operations, pieces weighing up to 60 pounds, and can also manipulate almost as well as men, with the aid of lifting appliances, any weights over 80 pounds. It is on work weighing between 60 pounds and 80 pounds where it becomes questionable whether women can be properly and economically employed. There is the cost of special lifting tackle and handling devices necessary for women that may be obviated in the case of men, and in instances where tackle has been provided for dealing with these weights it has been found that women prefer not to go to the trouble of using such tackle, and so overtax their strength by endeavoring to lift weights which after a time generally results in injury to health.<sup>3</sup>

The Health of Munition Workers Committee gave special attention to this matter in its final report. The departmental committee on accidents had declared it unwise to lay down any definite and detailed provisions on the subject, since the possibility of injury depended to a great extent on individual cases and circumstances,

<sup>1</sup> Speech of F. G. Kellaway, summarized in *Dilution of Labor Bulletin*, London, June, 1918, p. 122.

<sup>2</sup> General Order No. 13, issued by the Chief of Ordnance, and a similar order issued by the Quartermaster General, U. S. War Department, contain the following provision: "No woman should be required to lift repeatedly more than 25 pounds in any single load." See *MONTHLY REVIEW* for December, 1917, p. 53.

<sup>3</sup> Paper by B. H. Morgan, summarized in *Railway News*, London, June 1, 1918, p. 573.

but had suggested that it might be well to have a general provision that a woman should not be employed to lift, carry, or move anything so heavy as to be likely to injure her. The Home Office in September, 1916, had passed a general order to this effect, and in commenting on it, the Health of Munition Workers Committee says:

The weight which can safely be lifted depends not only on the physique of the worker but on the position in which the weight lies, its shape, the manner of carrying it, and the place to which it has to be carried. Again, much depends on the acquisition of knack. Given, however, reasonable conditions and a good physique, women and girls over 18 have been found able to handle weights up to 50 pounds in the ordinary course of work without difficulty. Such a weight would, of course, be too great for women of less than normal strength, or if the weight is of awkward bulk, or has to be raised to a special height.<sup>1</sup>

In connection with this, the committee quotes a report as to women engaged in making and finishing crucibles:

The heaviest handled by one woman alone weigh 57 pounds. Lifting is intermittent, occurring in the intervals of manufacturing work. The girls have been carefully chosen for their good physique and appeared to lift the crucibles with complete ease. Thus of one factory it is reported that "the forewoman took pains to instruct the girls in the right way of handling the heavy crucibles. She said some required considerable instruction how to carry, as they often began by attempting to do the whole work with their forearms and wrists, bringing no other muscles into play and consequently quickly exhausting themselves, but practice soon helped them over this difficulty. If a girl could not acquire the knack of right handling she hurt herself and injured the crucibles and was taken off that work."<sup>2</sup>

The Dilution of Labor Bulletin also contains discussions regarding women in kinds of work which from other reasons have been deemed undesirable for them. In many cases, it is held, the objections have no valid foundation if women of the right kind are selected and if a little attention is paid to making conditions safe and suitable for them. In one respect women are more desirable than men for work under difficult conditions since they are more willing to adopt the safety precautions which, "applied inflexibly, may not make the work any more comfortable, but do remove the element of danger." In fact the Ministry of Munitions appears to adopt unreservedly the conclusions given in a discussion of the health of munition workers, published in the British Medical Journal:

The well-being of young girls fresh from school, of the prospective mother, and of the mother during the first months of her infant's life more than ever call for sympathetic recognition. If proper care and forethought are exercised there seems no reason why women and girls, if suitably selected and supervised, should not carry out many operations hitherto considered fit only for men, without permanent detriment to their future health.<sup>3</sup>

<sup>1</sup> Ministry of Munitions. Health of Munition Workers Committee. Final Report. Industrial Health and Efficiency, p. 97. London, 1918 [Cd. 9065].

<sup>2</sup> Health of Munition Workers. Reprinted from the British Medical Journal, July 7, 14, 21, and 28, 1917. London.

**HEALTH OF WOMEN MUNITION WORKERS IN ENGLAND.**

The final report of the Health of Munition Workers Committee<sup>1</sup> contains a summary by Dr. Janet Campbell of inquiries into the health of woman munition workers. Dr. Campbell conducted two such inquiries, the first in 1915 and 1916, dealing with 1,326 women mostly employed on fairly light processes, and the second in 1917, covering 1,183 women, many of whom were employed on heavy shell making. Practically all the women included in the second inquiry had been in munition work for nine months, and most of them for longer. Purposely, a disproportionately large number of married women was selected for examination.

**CHARACTER OF WORK DONE.**

Women were at first employed only on light work, not handling anything heavier than 3-inch shells. Then they were put on 4.5-inch shells, which weigh 48 pounds in the rough and about 27½ pounds in the completed state, and now they are employed on shell of all sizes. They perform all the different operations, including working on lathes and on milling and drilling machines, examining, checking, cleaning, and also loading and unloading wagons. They are also employed as crane drivers and slingers. No lifting tackle is provided for the 4.5-inch shells. For 5 and 6 inch shells lifting tackle is provided, but it is not always used by the women, who find it quicker to lift the shells by hand. The 6-inch shells weigh about 130 pounds in the rough and 90 pounds when finished, "so that women are just able to lift them." Since the heavier shells can not be handled without tackle, the women are really in more danger of overstrain on the 6-inch than on the heavier shells. Many of the women really like the heavy work:

It is astonishing how deft women become in dealing with heavy weights, and they often take great pride in their muscular strength and dexterity. But clearly it is most important first to select the workers properly and next to watch that they do not attempt too much in their eagerness to do well.

**HOURS, NUTRITION, ETC.**

The excessive hours worked at the beginning of the war have been reduced, yet it is still permissible for women to work 60 hours a week, exclusive of pauses and mealtimes. This usually means two 12-hour shifts, though in many factories using the two-shift system the hours are somewhat less, 55 or 57½ per week, with a half day off on Saturday. Some factories work a three-shift system of about eight hours per shift. The 12-hour shift is considered entirely too long, especially for married women, although one in-

<sup>1</sup> Ministry of Munitions. Health of Munition Workers Committee. Final Report. Industrial Health and Efficiency. Pp. 132-152. London, 1918. Cd. 9065. See pages 40 to 53 of this issue of the LABOR REVIEW.



investigator reports that the introduction of a shorter shift would need careful consideration as to the effect on individual women, "as the eight-hour factory shift in addition to heavy household work involves a heavier day's toil than factory work alone through a 12-hour shift when it is obviously impossible to undertake home duties." Dr. Campbell strongly recommends that women engaged in heavy work should not have shifts of longer than eight hours.

The dietary habits of the women have improved considerably since they entered the munition factories. This is due partly to the better wages which permit them to buy enough food, partly to the increased appetite and desire for solid food following upon regular work under fairly hygienic conditions, and partly to the introduction of well-managed canteens in which suitable food can be procured. Transit and housing difficulties are still serious, and much of the fatigue from which the women suffer is due to conditions of this kind incidental to factory life rather than to the nature of the work itself. Welfare work is becoming increasingly general, and its value is emphasized.

The extent to which these women seem to suffer from the effects of their work is increased by the relatively large number of married women among the munition workers. A certain proportion of these are young married women without children or household responsibilities who are no more affected by the work than single women. The difficulty comes with the other class, who have to add the factory work to their home work:

Married women are often fully competent physically to carry out duties at the factory. It is only when these duties are supplemented by home work after long hours of factory work, by the difficulty of making proper arrangements for their children during their absence, by the ever-increasing difficulty of shopping during the limited interval, and often by worry or anxiety in regard to husband or relatives at the front, that the burden becomes too heavy to bear without mental or physical damage.

#### MEDICAL FINDINGS.

A physical examination, necessarily rather hasty and superficial, was made of the women from eight factories, who were divided into three groups according to the results of the examination, as follows:

	Number of work-ers ex-amin- ed.	Class A: In good health.		Class B: Some fatigue or ill health.		Class C: Marked fatigue or ill health.	
		Number.	Per cent.	Number.	Per cent.	Number.	Per cent.
Inquiry No. 1.....	1,326	763	57.5	451	34.0	112	8.5
Inquiry No. 2.....	1,183	692	58.5	425	35.8	66	5.7

According to this table about 40 per cent of the women exhibit definite signs of fatigue. Dr. Campbell believes this is an under-

statement of the case, because (a) much early fatigue is latent and objectively unrecognizable; (b) the women most seriously affected tend to drop out of factory life before they have served for any long period; (c) women knowing themselves fatigued might not offer themselves for examination; and (d) since the examination was necessarily superficial, only definite and relatively well-marked fatigue could be detected. As these causes would be equally operative in both inquiries they do not affect the comparative situation, and it is a striking fact that the amount of serious fatigue shown among the women examined is smaller in the second than in the first inquiry.

Due to the reasons above noted, it is likely that the amount of fatigue revealed by the inquiry is less, and possibly much less than is actually experienced among the workers as a whole. On the other hand the fatigue is not so great as might be expected, taking into consideration the hours worked and the processes performed. Several reasons are suggested for this. Interest in their work and a desire to do their part might keep the workers from feeling the strain which would be developed by a mere dull routine of work. The higher wages, which enable the women to have better food and clothing, lead to improved nutrition and an increased resistance to disease. The advance of welfare supervision has done much to remove detrimental conditions and indirectly to improve the physique and endurance of the workers. One reason assigned is that many of the women had previously been employed at harder work under worse conditions, and that their health under the more favorable conditions of munition work improves progressively. Thus in one factory where women were employed from 10 to 11 hours daily on heavy work, the investigator notes: "A few had spent many years as charwomen working hard for little remuneration, and these looked upon the regular long hours of munition work as a well-paid rest."

Unfortunately few details of the medical investigation are given. Women from eight factories were examined, and the results show that the character of the work alone does not account for the amount of fatigue shown. Thus the largest proportion showing marked fatigue—12.3 per cent—was found among 73 women employed in Factory No. 6, in which the women are engaged in making fuses. "The work is light in character and in itself involves little or no physical strain." On the other hand, in factory No. 5, in which women were employed on all processes in making 9.2 and 6 inch shells, and at the time of the investigation had been working long shifts for six months, of 199 women examined the proportion showing marked fatigue was only 4 per cent; the proportion showing slight fatigue, however, was large—57.2 per cent. The best showing was made in a factory (No. 2) in which women were working on 9.2 and 6 inch shells, and were also employed on overhead cranes and as slingers. Here most of the

women worked eight-hour shifts and a system of welfare supervision was in effect. About two-fifths of the women were married, 56 had young children, and about half of these were doing heavy housework in addition to their work in the factory. Yet of the 264 examined, only 4.5 per cent showed marked fatigue and 20 per cent slight fatigue.

The particular defects of health found were not always traceable to factory conditions. The ailments most frequently observed were digestive disorders, defective teeth, headache, nervous irritability, anemia, muscular pains, and menstrual disorders. About one-fourth of the group suffered from this last-mentioned cause, "which in some cases had appeared since factory work commenced." Some cases were found in which there was evidently a connection between heavy work and an increase of menstrual trouble, but how frequently this occurred is not stated. On the whole, Dr. Campbell concludes that the women at work in the factories are bearing the fatigue of munition work surprisingly well.

#### CONCLUSION.

As a result of the two investigations Dr. Campbell submits the following conclusions, which are adopted by the Health of Munition Workers Committee:

To sum up, the general results of these inquiries indicate:

1. That there is definite burden of fatigue, which though relatively small in amount as regards severe fatigue is considerable as regards that of a less severe character.

2. That the fatigue and ill health are less than might have been anticipated having regard to the hours of work and the nature of the employment, and that this is due, broadly speaking, to the greatly improved attention to the health and welfare of the workers.

3. That fatigue and sickness are greatest where heavy work is combined with long hours at the factory and associated with onerous domestic duties after factory hours.

4. That unless brought under control, the considerable amount of moderate weariness and ill health now present is likely to reduce immediate efficiency and also exercise in many cases an injurious effect on subsequent health and on capacity for maternity.

5. That although there has been substantial improvement in the conditions and circumstances of women's work in factories further action is necessary if the amount of fatigue is to be diminished rather than increased. In particular the findings of this inquiry seem to indicate the necessity—

- (a) For further shortening the hours of labor for women.

- (b) For restricting women's work in the heavier branches of industry to those who are young, physically fit and capable and who have not arduous home duties to perform.

- (c) For the continuation and development, wherever women are employed in factories, of hygienic conditions, and especially welfare arrangements (including industrial canteens); and

- (d) For making appropriate provision for effective medical supervision, both on entrance to the factory (in heavy and exceptional occupations), and, subsequently, by means of the services of medical officers (women preferred) and nurses, and in the form of suitable accommodation as to rest rooms, first-aid appliances, and well-equipped surgeries.



**EMPLOYMENT OF WOMEN IN FRANCE DURING THE WAR.**

A survey of the extent and nature of the employment of female labor in France during the war is published in a recent number of the Bulletin of the French Ministry of Labor.<sup>1</sup> A summary of this article follows:

The investigations undertaken by the French factory inspection service as to the activities of industrial and mercantile establishments after the outbreak of the war, the results of which have been published in various issues of the Bulletin, have shown a considerable and progressive increase in the employment of female labor in the various branches of the national activity. They did not, however, furnish any statistical data showing in figures the importance of the increased employment of female labor. Also they covered only those establishments subject to the supervision of the factory inspection service, and consequently did not include mining and quarrying, common carriers, nor the establishments of the Ministries of War and of the Navy, in which the interests of the national defense do not permit investigations by outsiders. In the latter half of 1917 several investigations were undertaken, of which the results are now available.

**ESTABLISHMENTS SUBJECT TO THE SUPERVISION OF THE FACTORY INSPECTION SERVICE.**

The investigation undertaken in July, 1917, covered 52,278 establishments, employing in normal times 1,037,485 male and 487,474 female workers, or a total of 1,524,959 persons. The following table shows the distribution of female workers among the various industry groups at five specified periods, and also gives for each of these periods the percentage they formed of the female working force employed before the outbreak of the war.

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<sup>1</sup> France. Bulletin du Ministère du Travail et de la Prévoyance Sociale, vol. 25, Nos. 1 and 2, Paris, January-February, 1918, pp. 1-20.

DISTRIBUTION OF FEMALE WORKERS AMONG THE VARIOUS INDUSTRY GROUPS BEFORE THE OUTBREAK OF THE WAR AND AT FIVE PERIODS, 1914 TO 1917, IN ESTABLISHMENTS SUBJECT TO THE SUPERVISION OF THE FACTORY INSPECTORS.

Industry group.	Female working force employed—						Percentage as compared with the prewar working force.				
	Before the outbreak of the war.	August, 1914.	July, 1915.	July, 1916.	January, 1917.	July, 1917.	August, 1914.	July, 1915.	July, 1916.	January, 1917.	July, 1917.
Food.....	34,918	22,267	31,261	35,990	31,214	35,591	64	90	103	89	102
Chemical.....	14,959	8,115	14,872	20,568	23,824	24,569	54	99	137	159	164
Rubber, paper, cardboard..	21,683	8,627	16,136	19,571	20,320	20,958	40	74	90	94	97
Printing.....	11,000	4,942	6,458	7,677	8,226	8,351	45	59	70	75	76
Textile.....	190,944	75,040	154,307	176,639	183,445	183,239	39	82	92	96	96
Clothing: working up of straw, feathers, hair.....	108,412	36,128	69,790	90,087	91,140	94,778	33	64	83	84	87
Hides and leather, furs.....	22,596	8,930	17,601	21,902	23,245	24,068	40	78	97	103	107
Woodworking.....	9,047	2,463	7,098	10,428	12,628	13,933	27	78	115	140	154
Metal working.....	18,815	9,370	64,479	118,331	159,086	171,700	50	343	629	846	913
Precious metals.....	2,883	496	1,512	1,984	2,017	1,969	17	52	69	70	68
Cutting of precious stones..	1,306	351	755	926	954	1,050	27	58	71	73	80
Cutting and grinding of stones, earthwork, building trades.....	495	99	267	472	516	640	20	54	95	42	129
Pottery and brick making..	17,153	3,198	7,407	10,433	11,492	11,855	19	43	61	67	69
Transportation.....	210	168	329	897	950	954	80	157	43	45	454
Commerce.....	33,053	18,913	25,307	30,796	31,702	33,226	57	80	93	96	101
Total.....	487,474	199,107	418,579	546,701	600,759	626,881	41	86	112	123	129

<sup>1</sup> Shown here as given in the original; column adds to 417,579.

This table establishes the fact that the chief increase in the employment of female labor has taken place in industries working for the national defense. It also indicates that those industries in which the number of female workers has decreased were enabled to furnish such workers to other branches of the national activity. In 8 out of 15 industry groups the number of female workers was larger in July, 1917, than before the outbreak of the war. For every 100 female workers employed before the outbreak of the war the metal-working industries employed in July, 1917, 913, transportation industries 454, the chemical industries 164, and the woodworking industries 154. In seven industry groups, on the other hand, there was a decrease in the number of female workers. For every 100 female workers employed before the outbreak of the war, in July 1917, there were only 97 in the rubber, paper, and cardboard industries, 96 in the textile industries, 87 in the clothing industry, 80 in the cutting of precious stones, 69 in pottery and brick making, 76 in the printing trades, and 68 in the working up of precious metals. In the food industries, hide and leather industries, and commerce the figures indicating the extent of employment of women have changed very slightly, and in July, 1917, were 102, 107, and 101, respectively, as compared with 100 before the outbreak of the war.

The eight industry groups which show an increase in the number of female workers employed have gained 170,588 female workers

as compared with prewar times. The seven industry groups which show a decrease of their female working force have experienced a loss of 31,181 female workers. The net gain, therefore, amounts to 139,407, or 28.6 per cent.

After having ascertained the absolute increase of the female working force it seems expedient to examine into its relative increase—i. e., in what proportion this working force has increased as compared with the total personnel of the establishments covered by the investigation. This is shown in the following table by industry groups:

PROPORTION FEMALE WORKERS FORMED OF THE TOTAL PERSONNEL OF ESTABLISHMENTS SUBJECT TO THE SUPERVISION OF THE FACTORY INSPECTORS BEFORE THE OUTBREAK OF THE WAR AND AT FIVE PERIODS, 1914 TO 1917, BY INDUSTRY GROUPS.

Industry group.	Per cent female workers formed of the total personnel—					
	Before the outbreak of the war.	August, 1914.	July, 1915.	July, 1916.	January, 1917.	July, 1917.
Food.....	37	44	42	44	40	44
Chemical.....	18	22	22	24	25	26
Rubber, paper, cardboard.....	39	49	48	48	48	49
Printing.....	28	37	34	36	38	38
Textile.....	61	71	70	71	72	71
Clothing; working up of straw, feathers, hair.....	78	81	80	86	85	86
Hides and leather, furs.....	32	33	36	39	39	40
Woodworking.....	10	12	16	16	18	19
Metal working.....	5	7	19	23	26	26
Precious metals.....	35	47	42	44	41	40
Cutting of precious stones.....	45	64	63	65	66	69
Cutting and grinding of stones, earth work, building trades.....	0.68	0.86	1.11	1.45	1.63	1.74
Pottery and brickmaking.....	21	19	22	24	25	26
Transportation.....	0.69	1.15	1.47	3.10	3.27	3.39
Commerce.....	36	46	49	49	51	50
Total.....	31.9	38.3	39.8	39.6	40	40.2

Before the outbreak of the war the female working force formed 31.9 per cent of the total personnel of the establishments covered by the preceding table. In August, 1914, although the number of female workers had decreased by 59 per cent, their percentage of the total working force had reached 38.3 per cent, owing to the gaps left in the male working force on account of the mobilization. Between August, 1914, and July, 1915, the male working force increased by 312,573 workers and the female working force by 219,472, while the proportion of the latter rose to 39.8 per cent. These same two classes of workers increased by 201,970 and 128,122, respectively, in July, 1916, and by 90,347 and 80,180 in July, 1917, and the percentage of female workers of the total personnel rose successively to 39.6 and 40.2 per cent.

The following table shows the total number and per cent of male and female workers at the four periods considered, as well as the



proportion per sex compared with that existent before the outbreak of the war:

NUMBER AND PERCENTAGE OF MALE AND FEMALE WORKERS IN ESTABLISHMENTS SUBJECT TO THE SUPERVISION OF THE FACTORY INSPECTORS AT SPECIFIED PERIODS, 1914 TO 1917.

	Before the outbreak of the war.	August, 1914	July, 1915	July, 1916	July, 1917
Number of male workers.....	1,037,485	319,622	632,195	834,165	932,512
Number of female workers.....	487,474	199,107	418,579	546,701	626,881
Total working force.....	1,524,959	518,729	1,050,774	1,380,866	1,559,393
Per cent of male workers.....	68.1	61.7	60.2	60.4	59.8
Per cent of female workers.....	31.9	38.3	39.8	39.6	40.2
Per cent, as compared with that of prewar times, of—					
Male workers.....	100	31	61	80	90
Female workers.....	100	41	86	112	129
The total working force.....	100	34	69	91	102

In August, 1914, immediately after the mobilization, the total working force of the establishments considered here was only 34 per cent of its normal size; in July, 1917, its size was 2 per cent above that of normal times. Between August, 1914, and July, 1917, the total male working force rose from 31 to 90 per cent of its normal size, and the total female working force from 41 to 129 per cent. This comparison shows clearly the importance of female labor in the establishments inspected by the factory-inspection service.

**MINES, ENGINEERING CORPS AND QUARTERMASTER'S DEPARTMENT, HEALTH SERVICE, NAVY, AND RAILROAD SERVICE.**

Below is shown the percentage female workers formed of the total working force in each of the above services on January 1, 1918:

	Per cent.
French mines (female and juvenile workers).....	12.8
Engineering corps and quartermaster's department.....	21.5
Navy (State establishments).....	21.2
Health service.....	47.3
Great railroad systems.....	14.3

**MUNITION AND ORDNANCE FACTORIES, INCLUSIVE OF STATE-OWNED ESTABLISHMENTS.**

In July, 1915, female workers in private and State munition and ordnance factories formed 11.25 per cent of the total personnel of these factories. On January 1, 1918, this percentage had more than doubled, being 23 per cent. If, on the other hand, the number of these female workers in January, 1916, is assumed to be 100, an index number of 361 (388 for private and 295 for State establishments) is obtained for January, 1918.

The following table gives for specified months of 1916, 1917, and 1918, the index numbers of female workers employed in private and State munition and ordnance factories and in both combined, and the percentage which female workers form of the total personnel of these establishments:

INDEX NUMBERS OF FEMALE WORKERS IN PRIVATE AND STATE MUNITION AND ORDNANCE FACTORIES AND PERCENTAGE OF THESE WORKERS OF THE TOTAL PERSONNEL, 1916, 1917, 1918 (JANUARY, 1916=100).

Month and year.	Index numbers of female workers employed in—			Per cent female workers were of total personnel.
	Private establishments.	State establishments.	All establishments.	
January, 1916.....	100	100	100	14.0
April, 1916.....	178	123	162	18.0
July, 1916.....	240	175	221	21.4
September, 1916.....	289	196	263	22.7
January, 1917.....	358	241	292	24.0
April, 1917.....	366	264	337	23.7
July, 1917.....	378	278	349	24.0
September, 1917.....	381	277	351	25.0
January, 1918.....	388	295	361	23.0

The Ministry of War employs numerous female workers as clerks, private secretaries, editorial clerks, typists, stenographers, accountants, charwomen, etc.

#### NATURE OF WORK AND WORKING CONDITIONS OF FEMALE WORKERS.

As has been stated above, the investigations of the factory inspectors made it possible to draw up a list of those occupations which during normal times were not filled by women but have been intrusted to them during the war. This list has been published in the Bulletin (July-August, 1915, issue, p. 180; January-February, 1916, p. 7; and June, 1916, p. 192). The results in this respect of more recent investigations, particularly of those of November, 1917, in the same establishments and in those under the administration of the munitions, engineering, and quartermaster departments are given here.

Women adapt themselves more and more to the most varied occupations. As a matter of fact, they perform either with the aid of machines or by hand work nearly every operation, from the moment when the raw material enters the factory up to the time when the finished product is shipped from it.

In industries employing women in normal times the woman workers have been taught the operation of new machine tools.

In establishments employing women only since the outbreak of the war women were at first given only such work as corresponded to their physical aptitude. By and by, however, under the pressure

of necessity, and because the first experiments in this respect had encouraging results, they were also employed at much harder work, requiring considerable strength and adroitness, from which they were formerly barred. They are now excluded only from work which manifestly exceeds their strength, is too dangerous, or requires exceptional physical strength and skill combined, such as the carrying and handling of heavy burdens, work on scaffolds or elevated points, and special work in iron and steel mills and glass works. Among the exceptional occupations opened to women during the war should be mentioned the highly skilled work of assembling, running of steam engines, autogenous welding, linotype composing, piecing and doffing in cotton mills, machining by series of lathes, accessory work in forges and brick kilns, tawing and dyeing, research and laboratory work, supervision, etc.

EMPLOYMENT OF WOMEN IN WAR SUPPLY SERVICES (SERVICES DE MANUTENTION).

*Loading, unloading, and carrying.*—All industries use women to a great extent for the handling of war materials. In some industries they are used at all kinds of work, without distinction, inclusive of loading and unloading, while in others they are exclusively employed at transportation within the factories of products in course of manufacture. The distances which they have to go in transporting goods are generally short. The weight which they may handle is regulated by the decrees of December 28, 1909, and April 26, 1912, and may not exceed 25 kilograms (55 pounds). Suitable equipment, such as hoisting apparatus, winches, appliances for mechanical transportation, etc., to reduce the physical effort needed for such operations, is being introduced more and more in the factories. Very heavy work is done exclusively by men. Nevertheless, women load and unload timber, battens, and iron; operate traveling cranes and electric trolleys; in tanneries unload and carry on their shoulders green hides weighing not more than 44 pounds; convey shell and material from place to place within munition factories; and generally transport whatever is needed, within the limits of weight mentioned above. Some industries employ women to drive teams and auto trucks, but the total number so employed is still very small. They were also found to be employed to a limited extent as firemen on small locomotives, brakemen, switchmen, and crossing men. In two establishments 15 and 25 women, respectively, operate electric trolleys with loads of 1,500 kilograms (3,307 pounds), and 48 women act as switchmen.

*Inspection, packing, boxing, nailing.*—Women are very generally employed for inspecting manufactured products of every kind. In shell and gun factories the work of inspection and gauging is handled



almost exclusively by female workers. They are prepared for this work through a study of guns and gauges and by successive verifications of the caliber of guns of all kinds. In a torpedo factory women do almost all the work of gauging, and are taught the use of more complicated measuring apparatus, such as gauges for metallic plates, metric gauges, etc., for reading one-hundredth part of a millimeter.

In the clothing industry they distribute the work and receive and examine finished garments. They also work as inspectors in potteries, in factories, and in mercantile establishments. In the engineering services they inventory all material on its arrival.

In many districts the work of marking articles and putting them in piles is done by females. The same is true of the work of wrapping, packing, and boxing, except where the articles to be handled are too heavy. One large depot within the city limits of Paris employs women as watchmen of the ships which men load and unload, and also as charwomen. Women follow the gangs of stevedores and with a needle and twine rapidly repair sacks which burst in the course of the work. In prewar times this work was done by men, who merely passed twine through the hole and knotted it. Now the women mend the sacks thoroughly and thereby make it possible to store and ship them.

*Work in the Quartermaster's Department.*—Generally speaking, in this department women are employed at all work compatible with their physical limitations. In some instances the installation of hoisting and trucking apparatus has permitted the employment of women in occupations hitherto reserved to men. In addition to office work, women perform the following services:

**Clothing:** Stock keeping, loading and unloading of vehicles, finishing and cutting of textiles, folding, making of clothing, sorting and packing.

**Foodstuffs:** Stewardess, marking, manufacture of war bread, placing biscuits on baking pans, packing in boxes, etc.

**Fodder:** Making iron bands, feeding gristmills, screening and sacking grain, sorting and beating sacks.

**Storage houses:** Stowing, roasting coffee, sorting potatoes, marking and scraping barrels, manufacture of sausages, etc.

**Manufacture of shoes:** Operation of cutting and trimming machines, preservation and piling up of leather, etc.

**Central supply depots:** Loading, unloading, repairing packages, verifying the count of goods to recipients, pasting labels, etc.

#### CHANGES IN SHOP ORGANIZATION AND WORKING PROCESSES.

In many districts the industrial establishments have changed and improved their systems of operation in order to make possible the employment of women, more particularly their employment in the place of men. They have subdivided the working processes as much

as possible, organized serial production, and simplified the tasks set for female workers. The need of increased output has led to the improvement of shop equipment, especially of loading, unloading, and hoisting devices, and to the introduction of machine tools, such as special lathes for shell, and these, in turn, have permitted the employment of large numbers of women as shop hands and specialized hand workers. Working hours and the make-up of working gangs have been changed, the shops newly organized, seats provided for female workers, and crèches and day nurseries installed. Although some factory inspectors report that the replacement of male by female workers has been effected without any marked change in shop methods, the majority say that the employers have made earnest efforts to discover and introduce improvements which will at one and the same time make the work easier and the output greater.

Female workers have been furnished working clothes suitable for their occupation.

The employment of women by the engineering corps in the construction of barracks has been made possible by doing away with building plans and replacing them with models permitting the serial execution of the principal parts of the barracks.

#### COMPARATIVE OUTPUT OF MALE AND FEMALE LABOR.

Employers as a rule declare themselves satisfied with the results of employing women. In order to obtain good results, judgment must be used in the selection of the women, and those not sufficiently robust must not be employed at heavy work. Women in general are more attentive to their work and frequently more dexterous than men. On the other hand, their time keeping is not so good (according to one inspector, their absences amount to about 5 per cent), and the production of a given working force is often less regular than formerly, particularly for night work. For this reason it is necessary to hire supplementary female workers as substitutes for absentees and to add also some male workers for heavy work, adjustment, repairs, and sharpening tools.

It is well known that in mechanical weaving women occasionally produce more than men, and that in screw and bolt factories they often show as much aptitude for the work as do men. It is generally admitted that in serial work executed automatically with machine tools, such as the manufacture of small parts of little weight, and in all work requiring intelligence and skill, a female worker can after short practice replace a male worker. In the manufacture of heavy and complicated articles, on the other hand, and in loading and unloading and all occupations requiring prolonged muscular effort or constant attention women produce less than men. It should also be kept in mind that certain complementary work can

be performed only by men. A comparison between the output of women and men is rendered difficult by the fact that the work of the factories has in many cases been completely reorganized. In general the output of the women is in inverse ratio to the physical effort required and to the duration of this effort.

#### WOMEN AS OVERSEERS AND FOREWOMEN.

In prewar times women working in separate shops were frequently placed under female overseers; this system has been continued and extended in many of the private establishments. In most of the State establishments the female workers are supervised in the same manner as the men by gang foremen under shop foremen and superintendents. Practice in this matter differs widely, however. One factory inspector remarks that the best means to get work out of female employees is to place them under female overseers and forewomen who are not natives of the locality.

#### MINGLING OF SEXES IN THE WORKROOMS.

In general, no segregation of the sexes is attempted, although the practice in this respect differs. In some shops a certain part of the shop, not inclosed, is reserved for the woman worker, while in others, especially in those with a large female working force, the women may be given separate rooms. At first, in some districts, there was trouble where men and women worked together, but this very speedily subsided. On the whole, the behavior of the workers within the shops is satisfactory, and a somewhat stricter supervision than was exercised before suffices to maintain good order. Some inspectors, however, feel that discipline suffers through the mingling of the sexes, and that wherever it is possible they should be kept apart, even to the extent of having different hours for coming and leaving.

#### RECRUITING FEMALE LABOR.

As a rule industrial establishments can easily obtain female labor. They apply for it to departmental and municipal employment offices, labor exchanges and prefectures, or advertise for it. Frequently the hiring is done directly, preference being given to wives of employees or of mobilized soldiers. Women already employed tell their friends of openings, and consequently women come in from all kinds of occupations.

In numerous ordnance shops posters were put up requesting women already employed there to volunteer for work formerly done only by men. Volunteers were either made to undergo a short apprenticeship, or were for some time assigned to men as helpers, in order to avoid any interruption of production. The wages of these women



were increased so as to bring them nearly up to the wages of the men whom they have replaced. In case the number of suitable volunteers was insufficient, appeal was made to local unemployed women either through the press or through the military authorities; the resources of the labor service were also utilized.

The shops of the engineering corps and the quartermaster department have appealed directly to women to volunteer for their work; in addition, they receive part of their help through employment bureaus. Preference is given to wives, mothers, and daughters of mobilized, injured, or killed soldiers.

#### TRAINING SCHOOL FOR FEMALE METAL TURNERS IN ITALY.<sup>1</sup>

With the aid of the Ministry of Munitions the Italian committee on industrial mobilization, by way of an experiment, established in September, 1916, in the large railroad shops of Travestere, a school in which women are being trained to work as metal turners. Instruction is limited to the requirements of the purpose in view, and the short duration of the course, combined with the prompt placing in employment of the graduates at the end of it, have made the experiment a success from its very beginning. The school has, moreover, been a great factor in lessening among women and industrial employers skepticism and unfounded prejudice against the diffusion of female labor in war industries.

At its opening the school was equipped with only six machines (four lathes and two boring machines), but one month later a fifth lathe and a third boring machine were installed, and in December, 1916, two revolving lathes, which were used in special work on fuses, were added to the equipment. The increased equipment permitted the enrollment of a larger number of pupils. The number of pupils graduated from the school during the period October, 1916, to February, 1918, was as follows:

1916.		1917.	
October.....	28	August.....	47
November.....	42	September.....	32
December.....	41	October.....	52
		November.....	35
		December.....	25
1917.		1918.	
January.....	40	January.....	49
February.....	42	February.....	40
March.....	44		
April.....	55		
May.....	47		
June.....	46		
July.....	49		
		Total.....	714

<sup>1</sup> Bollettino del Comitato Centrale di Mobilitazione Industriale. No. 10. Rome, April, 1918, p. 144.

The usual length of the course is one month, but in order to lessen the period of instruction a new system, which frequently bears good results, has been adopted. Two pupils are assigned to each machine, an advanced pupil and a beginner. The advanced pupil is able to give valuable pointers to the beginner, and it has been found that in this manner the course of instruction can be reduced from four to three weeks in the case of the more intelligent pupils. On graduating the pupils are morally sure of immediate remunerative employment. While learning they are paid for all usable work turned out by them.

## INDUSTRIAL SAFETY.

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### SEVENTH ANNUAL SAFETY CONGRESS, NATIONAL SAFETY COUNCIL.

The seventh annual safety congress of the National Safety Council will be held in the Statler Hotel, St. Louis, September 16 to 20, inclusive. A program treating of practically every phase of the safety movement with the one idea of promoting the accident-prevention campaign in industry has been arranged and will be presented in five sectional meetings, as follows:

1. Industrial division: Chemical, including rubber chemical; logging, lumbering, woodworking; metals and metallurgy, including foundry and iron and steel; mines and quarries; miscellaneous manufacturers, including automotive, cement, construction, car builders, paper and pulp, and textile.

2. Transportation and public-service division: Electric street railways; public utilities; steam railroad.

3. Health and industrial relations division: Health service; employees' benefit associations; employees' publications.

4. Public administrative division: Governmental.

5. Public-safety division: Public safety.

On the opening day will occur the registration and annual meeting of the members, the directors' meeting, and a general session of the congress, with six addresses, followed by a public mass meeting in the evening, at which, among others, Hon. Franklin K. Lane, Secretary of the Interior, will make an address on "Safety as an asset in winning the war."

On Tuesday, September 17, there will be a general session primarily for the benefit of safety engineers desiring to familiarize themselves with the fundamental principles and methods of securing success with their safety work, and on Wednesday a session for women has been arranged, at which such subjects as "The physical condition of workshops where women are employed," "Safety instruction in the schools," and "Medical supervision and adaptation of work to the women in industry" will be discussed. Employees' benefit associations will receive attention at meetings of the health and industrial relations division, the addresses suggesting ways to solve the problems presented by such a scheme, how the plan may be operated successfully, and its relation to the employer and employee and the best form of management. "The need for medical service and other benefits" is one subject. In connection with the discussion of public safety it is planned to have a special exhibit of traffic signs, signals,



semaphores, "no-parking" signs, safety zones, and towers. There will be addresses on "Desirability of uniform signs and signals, with some suggestions," "Public accidents—what they mean in monetary loss," "Making walking places safe," and other pertinent topics.

At a joint health service and governmental sectional meeting the questions of taking care of war cripples who return to industry and of responsibility for industrial cripples will be considered. Speakers at the governmental sectional meeting will discuss the matter of uniform safety standards and the general subject of a coordinated plan for national employment from the standpoint of the Government, the State, and industry.

In all, more than 150 subjects have been assigned for discussion, and there will also be opportunity for round-table discussions on matters of timely interest connected with the safety movement. A feature of the congress will be an exhibit of photographs, blue prints, and plans, selected from a collection of approximately 400 supplied by the United States Bureau of Labor Statistics, showing what has been accomplished along the line of welfare work in many establishments throughout the country. These include illustrations of dispensaries, hospitals, lunch rooms, rest rooms, bathrooms, operating rooms, X-ray rooms, examination rooms, lockers, medicine cabinets, first-aid drill, welfare buildings, washhouses, kitchens, and many others. There will also be an educational exhibit arranged by the council and the American Museum of Safety, besides a number of commercial exhibits.

## INDUSTRIAL HYGIENE AND POISONS.

### TRINITROTOLUENE POISONING.<sup>1</sup>

BY T. M. LEGGE, M. D., H. M. MEDICAL INSPECTOR OF FACTORIES.

I give a summary of some salient points in connection with TNT poisoning which for a short time was baffling, both as to the essential cause and the best means of prevention. The diminution now shown in incidence of the disease brings out the value of scientific research into the causes of industrial diseases.

In prewar time trinitrotoluene in the small quantities (about 10 per cent) in which it was used in the manufacture of explosives gave rise to no trouble, and because of this effort was made to encourage substitution of TNT for dinitrobenzene, the injurious effects of which were well recognized.

In 1901 Dr. Prosser White, whose use of his opportunities for observation and prevention as appointed surgeon for many years at a large explosives factory in Lancashire I gratefully acknowledge, carried out, in conjunction with Dr. J. Hay, classical experiments proving conclusively that the main channel of absorption of dinitrobenzene was through the skin. "TNT," they said, "is not poisonous under ordinary use. \* \* \* This is a very important practical point, as the susceptibility of man and animals seems closely allied. In some factories the TNT has been substituted for dinitrobenzene with great advantage to the health of the workmen employed." Thus the issue in regard to TNT on this important point was unintentionally obscured, as extraordinary use of the material could not have been foreseen.

On the outbreak of the war, therefore, the conditions in the factories for the manufacture, rather than the use, of TNT caused anxiety. When later the fumes and dust generated in the processes of shell filling were seen the necessity for adopting mechanical means obviating dust or of locally applied exhaust ventilation became imperative. The view that "clean working" was the surest means of bringing about reduction in the poisoning was much advanced by the demonstration of the importance of the skin as a principal channel of absorption by Dr. Moore and his coworkers after close study of the subject on factory premises and by experiment on themselves.<sup>2</sup>

<sup>1</sup> From Annual Report of the Chief Inspector of Factories and Workshops for the year 1917. London, 1918. [Cd. 9108.] Pp. 21-24.

<sup>2</sup> The Causation and Prevention of Trinitrotoluene Poisoning, by Benjamin Moore, M. D., F. R. S., Special Report Series, No. 11, of the Medical Research Committee, National Health Insurance, 1917.

The first fatality attributed to TNT occurred in the manufacture of the material in February, 1915. I was present at the post-mortem and was struck by the general jaundice of sclerotics and skin so closely resembling that which I had frequently seen shortly before, from tetrachlorethane. Dr. B. Spilsbury examined the organs and established the fact that TNT causes changes in the liver and kidneys similar to those produced by tetrachlorethane.

In the summer of 1915 a medical practitioner reported a case in a shell-filling factory. In the inquiry which followed, Dr. Collis noticed particularly the effect of the compound on the blood. Two fatalities—one in August and one in December—were reported in 1915. In that year I circulated information as to the nature of poisoning by nitro derivatives of benzene among the surgeons appointed to make periodic medical examination of persons employed in processes in the manufacture of TNT under the regulations. This information was sent also to the national filling factories then springing into existence and to the medical officers whom the ministry were appointing to supervise the health of the workers in them.

Toward the end of 1915 the necessity for obtaining more information as to the prevalence of TNT poisoning had become apparent and an order was accordingly made under section 73 of the factory act, 1901, making cases of toxic jaundice notifiable. The reason why toxic jaundice and not TNT poisoning was added to the list of notifiable diseases was as follows:

Notification of industrial disease is a more difficult matter than is notification of infectious disease, and if care is not taken the usefulness of the requirement may be greatly impaired. The objects in view are to obtain knowledge of prevalence with a view to treatment and prevention. The difficulty in regard to notification of industrial disease is that, owing to the slow onset, the patient passes through a stage of absorption which does not amount to poisoning, and yet in which the stigmata of the particular compound, as, for example, the blue line on the gums from lead absorption, and cyanosis of the lips from TNT, are apparent. TNT is protean in the various ways in which its effects are shown. First, there is the irritative local effect on the skin, quickly yielding to the ordinary treatment for dermatitis. Secondly, there are the irritative effects on the alimentary tract—gastritis and vomiting—not readily distinguishable from the same common effects produced by other causes. Thirdly, there is the effect produced on the blood—formation of methaemoglobin, with consequent reduction of its oxygen-carrying power and leading, unless conditions are alleviated by transference to other work, to effect on the heart, liver, kidneys, and circulatory system generally. Fourthly, there is the specific destructive effect on the liver cells



characterized by the appearance of jaundice—a grave condition, proving fatal in from 25 to 30 per cent of those affected. Lastly, there is the rare condition of which some 13 cases (nearly all fatal) are known to have occurred of aplastic anemia, characterized by destruction of the red marrow of the bones, and, as a result of this great diminution in the red and white blood cells. These various symptoms are by no means always distinct one from another. With exception of the first, they are all to be described as TNT poisoning, and they may merge one into the other—cyanosis may be present with gastritis or toxic jaundice, jaundice may be present with aplastic anemia—they may be interchangeable or concomitant manifestations of the same poison.

I have dealt with them separately in order to insist that for the purpose of statutory notification all the forms are not equally important, although obviously the management of the factory should be aware of all cases. But when statutory notification has to be made the medical practitioner and occupier require a definite symptom to guide them. Publication of statistics of notifications of TNT poisoning would, in my opinion, be unreliable, as they would simply refer to a number of TNT workers seeking medical treatment for any and every complaint. But figures published monthly of incidence of toxic jaundice furnish a real indication of serious illness due to the compound, calling in each case for inquiry as to causation, and observance of precautions in the particular process at which the affected person was employed. This procedure has reduced expense to the State, has relieved the medical practitioner and occupier of doubt as to when to notify, and has saved endless worry and waste of time which must have resulted had a wider requirement been imposed.

In September, 1916, Dr. W. J. O'Donovan was appointed by the Ministry of Munitions to supervise the medical arrangements in national filling factories, and the success of the medical organization in them, and, with its development, the success of the measures taken to combat TNT sickness, are largely the result of the energy he has unsparingly thrown into the work. The medical staff in the national filling factories now numbers 15 resident medical officers, of whom 11 are women. Similar arrangements were made as regards the trade filling factories, and about the same time an interdepartmental committee was appointed to advise the Minister of Munitions generally on the measures necessary for the prevention of TNT poisoning in these factories. As a result of their recommendations a code of special rules was drawn up and approved by the minister, with the concurrence of the home secretary, under powers conferred by the Defense of the Realm Regulations. These rules do not apply

to the manufacture of TNT, as such factories are already dealt with by regulations under the factory act.

Since the order requiring the notification of toxic jaundice due to TNT came into force, January 1, 1916, the number of cases in each quarter of that year and 1917, respectively, were:

6<sup>4</sup>, 16<sup>5</sup>, 73<sup>21</sup>, 86<sup>22</sup>, and 83<sup>12</sup>, 56<sup>20</sup>, 21<sup>8</sup>, 29<sup>4</sup>. (The small figures indicate fatal cases, and are included in the larger figures.)

The totals for the two years do not show marked difference, but, as arranged in quarterly periods, the figures bring out the great increase of cases in the last two quarters of 1916, maintenance of this in the first quarter of 1917, and then decided improvement in the last three quarters of 1917.<sup>1</sup> During the whole of 1916 new construction and extension of other premises taken over was incessant. The conditions imposed by the war were maximum output, the greatest pressure, continuous employment day and night, and replacement of men's by women's labor. There was no appreciation of the insidiously poisonous nature of TNT, and of the right measures of prevention by cleanliness of work, i. e., cleanliness in every meaning of the word by prevention of dust and contamination of any part of the skin with the substance.

Of the total cases in 1916 the number of males attacked was 70, with 21 deaths, and of females 111, with 31 deaths; and in 1917 the corresponding numbers were 45 males, with 2 deaths, and 144 females, with 42 deaths. The number employed, especially of women, was much greater in 1917 than in 1916. The mortality rate for all cases has been 25.9 per cent (males 20 per cent, and females 28.6 per cent). Of the females attacked 61.5 per cent were 25 years of age and under, and of the males only 14.6 per cent—a fact which, no doubt, accounts for the apparently higher mortality rate in the former. At ages 40 and over, 12 men were attacked and 8 women. High mortality rate among persons employed under 18 in 1916 (6 deaths among 9 attacked) led to restriction of employment of persons under that age.

The critical months for the onset of jaundice in the susceptible were the second to the fourth month, during which period 57.4 per cent of the attacks occurred.

A remarkable feature both of the toxic jaundice and aplastic anemia in a few cases has been the latency of the condition—that is, the length of period which may elapse between absorption of the poison and development of jaundice or anemia. The most extreme case reported was that of a woman who, after two months' work in processes in the manufacture of TNT, was transferred to another

<sup>1</sup> The figures for the first quarter of 1918 were 13 cases, including 4 deaths.

department where she was employed in filling drums with benzol and toluol. Over seven months later she met with an accident—a spanner falling on her head. Toxic jaundice developed one week later and proved fatal in a fortnight. In one of the cases of aplastic anemia, examined by Dr. P. N. Panton, the anemia developed four months after leaving work and while still in hospital for toxic jaundice, and in another nine months after employment in TNT. The anemia has usually proved fatal in six or seven weeks after its recognition.

While incidence of toxic jaundice is the safest criterion of TNT sickness for the purpose of the factory department, it has been fortunately rare in comparison with minor illness, the result of absorption of TNT (or of its impurities, notably tetranitromethane) showing itself mainly in pallor with cyanosis, depression, and gastric derangement. For every case of toxic jaundice I believe there were at least 30 cases showing these symptoms, necessitating some absence from work. But none, so far as I know, proved fatal, and, as a rule, they quickly recovered under treatment and returned to work. In one factory where pure crystallized TNT is used to fill exploder bags, the certifying surgeon has reported four cases of toxic jaundice and 52 cases of minor TNT sickness entitling to compensation. The sickness figures in one national filling factory have fallen from 11 per cent in August, 1916, to 1 per cent in January, 1918.

Figures can not be given as to the numbers employed, beyond the statement that those coming into contact with TNT numbered considerably over 50,000. At this figure the number attacked by toxic jaundice works out at 3.6 per thousand in 1916, and in 1917, 3.8, and the mortality at 1 and 0.9 per thousand, respectively.

The nature of the work varies considerably, and, with alternation from one to another process, it is not always easy to say which has been responsible for the poisoning. Nor does it follow, as Dr. Moore has shown, that what appears to be the prominent feature of the particular process at which the affected person was employed—inhalation of fume, for example, in the melt house or inhalation of dust elsewhere—is necessarily so material a factor in causation of the poisoning as skin absorption.

The following figures, however, give for the cases in 1917, where it is stated, the process at which the disease was probably contracted: Melt house, 53; stemming and pressing, 29; stemming and filling, 6; filling exploder bags (pure TNT in powder), 25; breaking, sorting, etc., 11; pellet pressing, 9; incorporating room, 9; cleaning and finishing, 7; receiving and weighing TNT, 6; packing TNT, 5; miscellaneous, 25; total, 185.

The miscellaneous group has particular interest, as it includes isolated cases such as (a) covering trucks loaded with filled shells;



(b) stacking shells; (c) outside laborer; (d) rolling shells in transit shed; and (e) waxing, which are explained by skin absorption.

Incidence, fortunately, has been comparatively small in factories for the manufacture of TNT (16, with 2 deaths), as the nature of the processes do not involve the same contact with the material as does the use in filling.

The great fact brought out by close study of the precise occupation of those who have contracted jaundice is, in the light of the work done on the subject by Dr. Moore, the importance of skin absorption, and this is in my experience of industrial disease a difficult condition to overcome. It is easy to suggest the wearing of gloves, and gloves were provided and worn by the million. They never adequately protected the skin, and eventually were regarded more as a source of danger than a safeguard, and their use given up. And it was the same also with the continuous wearing of respirators, which has proved an impracticable remedy. But it is not so, fortunately, with regard to exhaust ventilation locally applied.

The steps taken on the recognition of the poisonous nature of TNT, in addition to medical supervision and general welfare, were to alternate wherever practicable a fortnight's employment on TNT with a fortnight on other work not exposing to it, and to get rid of hand manipulation as far as possible. Mechanical means for filling exploder bags were introduced, machines for filling shells with powder took the place of the very dusty tamping by hand, the shells were protected from splashing in the operation of filling with molten TNT, and the congealed amatol on the trucks on which the shells were conveyed away was systematically removed by steaming, instead of the dangerous chipping; floors and benches were mopped instead of swept down, and exhaust ventilation was locally applied whenever possible to remove fumes and dust from pans containing molten amatol, or where weighing and grinding of powder was carried on. The mechanical arrangements had to be carefully thought out, and the machines made. This necessarily took time, while output could not be delayed.

Stress must be laid on both the preventive and clinical work done by the resident medical officers. Such officers—sometimes two or three—have had to be appointed in every national filling factory, their principal duties being: (1) to examine applicants for work; (2) to detect early signs of effect of toxic chemicals used, to treat the symptoms, and bring home to the management the processes in which they occur most frequently, with a view to prevention; (3) to make a differential diagnosis, referring to their panel doctors for treatment the cases of minor illness, whether or not due to the occupation, and to the hospital cases of toxic jaundice; (4) to differentiate in claims for compensation those due to occupational

disease from other diseases, and in a hundred other ways to make their influence felt. The reports also of certifying surgeons, who in many factories have supervised the health of TNT workers, upon all the cases of toxic jaundice have been invaluable in information of the occupation and symptoms.

Reference to the manufacture of TNT would be incomplete without calling attention to the risk run from nitrous fumes both in the nitric acid plant and nitrating house. I append notes by Dr. Bridge on this important point:

The increased use of nitric acid has led to the installation of many new plants which together with all old plants have been worked to their fullest capacity. The risk of poisoning by nitrous fumes ( $\text{NO}_2$  with a varying proportion of  $\text{N}_2\text{O}_3$ ) has correspondingly increased. It is uncertain to what extent repeated sublethal doses of nitrous fumes affect the health of workers, but it is difficult to believe that continued inhalation of these fumes does not have a deleterious effect on the respiratory organs. There can be little doubt that a certain degree of inflammation of mucous membrane of the respiratory passages is set up by nitrous fumes. Absence from work for a day or two on account of so-called bronchitis is not uncommon among men employed in these plants. To some extent the mucous membrane becomes accustomed to the irritating effects of the fumes. Personal experience of men working unaffected in an atmosphere which produces in the observer smarting of the eyes and face, and dryness of the throat, leads one to this conclusion.

Where fumes are escaping, repairs should not be undertaken unless the workman engaged wears a suitable helmet or appliance through which air can be supplied. Woolen helmets into which compressed air is blown have proved satisfactory for quick repairs. Risk is run by repairers working unprotected, and in any case it is obvious they suffer grave discomfort which can be avoided by suitable precautions. It should not be left to the workman to decide whether he wears an apparatus or not; there should be no alternative. The workers are generally ignorant of the risk run, and in many cases need to be educated to protect themselves. There should be either an exhaust over the manhole to remove the fumes as they come off, or the still made in such a manner that it can be charged without escape of fumes. Fumes can be most effectively exhausted through a cast-iron pipe fixed at the manhole. A steam ejector within the pipe produces the necessary exhaust draught. To prevent the escape of fumes without an exhaust the manhole should be closed before the acid is run in. This has been effected in one works by carrying a fixed pipe from the acid charge to each still roof through a separate opening. The pipe being fixed in position the jointing is rendered fume proof. Improved conditions have also been obtained where a small pipe opening has been made in the lid of the manhole. The manhole is closed, and the acid run through the secondary opening. If the negative pressure in the plant is good, then such an arrangement would probably suffice. In filling carboys conditions for the workers would be much improved by removing the fumes by means of an exhaust.

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#### DINITROPHENOL POISONING IN MUNITION WORKS IN FRANCE.

BY ALICE HAMILTON, M. D.

From time to time rumors have come to us from France concerning more or less severe poisoning from dinitrophenol among the workmen engaged in the manufacture of explosives. These rumors are con-

firmed by a report of the researches of Prof. Étienne Martin, translated into English by the Factory Department of the Home Office in London, a few copies of which have been sent to this country.<sup>1</sup> Inasmuch as the process of manufacture used in France has been adopted in several American factories, we are faced with the same condition as that already familiar to the French. Already at least four fatalities have occurred in connection with dinitrophenol work in this country, and doubtless the hot months will see additional deaths, unless all possible precautions are taken. The following is a brief résumé of what the two French observers, Prof. Martin and Dr. M. Guerbet, have discovered as to the nature and prevention of dinitrophenol poisoning.

Certain processes are noted as being attended with poisoning to a greater or less extent. Cases have developed in connection with filtration, although the number here is not great. A far larger number is found in the fusion shop, as the vats and the tubs into which the product runs, and the gutters which carry it to the granulators, all give off fumes. In hot weather the danger from these fumes is specially great. The workmen who tend the granulating tables are exposed to dust. Seventeen cases were reported from the department in which dinitrophenol was weighed and melted for the 60-40 mixture. At present, centrifuging to get rid of the water has been abolished, but at first this was the greatest source of poisoning, for the water vapor which escaped carried the poison with it. Dry weighing is also being abolished, and fumes from the fusion vats are being removed by local exhaust ventilation.

#### SYMPTOMS.

The symptoms of poisoning in mild cases are described as follows: A pale, coated tongue, slight loss of appetite, vomiting, and sometimes slight jaundice, and a little albumen in the urine. Headache and vertigo are also complained of, and sweating is frequent, especially at night. Most of the workers state that they have lost much flesh—seven to eight kilos (15 to 18 pounds)—in a few months.

Severe intoxication by dinitrophenol has a quite characteristic train of symptoms. The workers show marked lassitude; they have a feeling of constriction at the base of the chest which interferes with respiration. The sweat appears at first to have a character which must be regarded as quite special. It has been observed that when a worker is going to be affected by dinitrophenol the parts of the skin protected by the clothing, such as are not likely to be stained by dinitrophenol (the chest, shoulders, back, and upper arm), assume

<sup>1</sup> Researches into (1) Intoxication by dinitrophenol, by Prof. Étienne Martin; (2) Dinitrophenol poisoning, by Dr. M. Guerbet; (3) Medical selection and supervision of workers with dinitrophenol, by Prof. Étienne Martin. Translation by Factory Department, Home Office, London, June, 1918.



a patchy yellow color. According to Prof. Martin, it is not a question of slight jaundice, since the observations were very accurate and the mucous membranes remained unaffected. "It appears to be an excretion of sweat containing dinitrophenol. The medical man attending at factory A has told me that when the skin of these particular parts is touched, the hands become yellow. On the other hand, workers who are insusceptible show the staining only in the uncovered parts, such as the head and hands." This symptom is of great importance as it shows that the sweating comes on when the organism is impregnated with dinitrophenol; it is an indication for suspension from work, and for treatment.

The face is slightly cyanosed; the heart is unaffected; auscultation of the lungs is negative or reveals only diffuse râles. Nervous tremor is constant. Intense thirst accompanies the sweating; the temperature rises above 100° F.

The majority of medical men describe the urine as normal, and as containing no sugar or albumen. A few have noted diminished excretion of urine. Others say the urine quickly takes on a blackish tint with greenish iridescence. Usually the urine of workers in dinitrophenol is an orange yellow in color. The heart is regular; the arterial pressure has not been noted.

Many have been cured very rapidly after having had lassitude and general weakness for several days.

When the case goes on to a fatal issue the temperature rises rapidly to above 104° F. Orthopnea<sup>1</sup> sets in and the pupils contract. Convulsions, either partial or general, appear. The sight becomes blurred and there is loss of consciousness, and edema of the lungs. The symptoms resemble those of uremia. Post-mortem rigidity sets in very early. The feet are flexed; the upper arms similarly are flexed and the hands clenched.

#### POST-MORTEM APPEARANCES.

Prof. Martin states:

The special coloration of the skin in the different parts of the body, covered or uncovered by clothing, the state of the nails, and the skin of the hands should be examined. The lesions found post mortem present nothing characteristic which enables one to affirm intoxication by dinitrophenol. The organs have no special color. It is necessary to remove the blood from the heart, to remove the stomach and its contents, the lungs, liver, and intestines and place in special vessels. These vessels should be sent to the laboratory for analysis.<sup>2</sup>

<sup>1</sup> Inability to breathe except when sitting upright.

<sup>2</sup> In the organism dinitrophenol is reduced to the state of aminonitrophenol. In the different organs examination was made as follows: The organs were divided and placed in two or three times their volume of alcohol at 95° C. After maceration for several days, expression and filtration of the liquid, the alcohol was distilled. Nitro derivatives have been found in the liquid freed from alcohol. The reactions are the same as those for picramic acid. With ferrous (*ferreux*) tartrate a red-orange colored reaction in place of a gooseberry red was given. When one gets a blue ring below, dinitrophenol has been partially changed into diaminophenol. By this method the following results were given: The blood and frothy liquid of the lungs contained a considerable quantity of dinitrophenol with which it was possible to tint or stain wool

## EFFECT OF TEMPERATURE.

Hot weather hastens intoxication in two ways: (a) By increasing evaporation of the substances worked with, particularly mononitrochlorobenzene and (b) by diminishing the elimination of poison through the urine, and thus lowering the power of resistance of the workers. In one factory in 1916 there were the following cases during six months:

	Number.	Days incapacitated.
March.....	16	43
April.....	13	20
May.....	13	37
June.....	14	24
July.....	31	62
August.....	90	200

## BIOLOGICAL AND EXPERIMENTAL RESEARCHES.

From observations of workers and experiments on dogs, Dr. Barral has found that dinitrophenol accumulates in the organism, particularly in the liver, and it is eliminated constantly in the urine of healthy workers in the form of diaminophenol, but that when the period of toleration is passed and intoxication occurs the reduction of dinitrophenol to the amino product diminishes and the urine contains, together with diaminophenol, some aminonitrophenol. The same effect occurs in alcoholic subjects, in whom poisoning with dinitrophenol is always very grave.

Since experiments show that aminonitrophenol begins to appear in the urine when the dose approaches a toxic one, industrial physicians should be able to detect by urinary tests the moment when the workers have reached the danger point. Observations carried on among workers show that it takes about eight days for the poison to be eliminated from the system. It is advised therefore that a system of alternation of work be adopted, controlled by urinary tests for the detection of diaminophenol.

Experiments have also been carried on by Dr. Meyer in the laboratory of the College of France, with the following results:

Pure dinitrophenol is toxic in a dosage of 0.05 gram per kilogram weight of the animal (a dog or rabbit). Death follows irrespective of the way in which the poison enters the system.

Intoxication by dinitrophenol is different from that set up by other nitrophenols. It is characterized by a sharp rise of temperature, considerable and progressive, which causes in animals efforts

an intense yellowish orange. The lungs and blood of the heart also contained a considerable quantity of dinitrophenol. The liver contained aminonitrophenol without dinitrophenol. The reduction of dinitrophenol to aminonitrophenol appears then to be effected principally in the liver. In the kidneys there was only a trace of aminonitrophenol. The brain and stomach contained no trace of nitro derivatives. In this way is demonstrated impregnation of the organs by dinitrophenol and the characteristic symptoms preceding death. Abundant sweating, orthopnea, considerable elevation of temperature are the noticeable proofs of acute intoxication by dinitrophenol.

to increase heat emission—in the dog, intense heat polypnea (panting).

Physiological examination shows that this rise of temperature in animals is not due to defective heat emission but is the result of a considerable increase in the production of heat which is not sufficiently compensated and this production of heat comes on *pari passu* with an increase in oxidation processes which are neither a result of muscular work nor of stimulation of the heat centers in the nervous system.

Dinitrophenol is a powerful oxydizing agent which increases the cellular activity rapidly, and, as a result of this, wasting of tissue takes place in individuals who absorb it in small doses and in those who are seriously poisoned a rapid rise of temperature and dyspnea are set up.

#### HOW IS DINITROPHENOL ABSORBED?

The three channels of absorption for poisons are the respiratory tract, the digestive tract, and the skin. In the case of dinitrophenol, it is not probable that workmen can absorb the poison by eating polluted food, as the product is so bitter that it makes food uneatable. It is, however, commonly introduced into the stomach by way of the nose and throat, the inspired dust and fumes being caught in the saliva and swallowed with it. Absorption through the skin must be regarded seriously. Dinitrophenol is not a coagulant like picric acid, but penetrates fairly deeply into the layers of the epidermis. One of the experimenters handled some dinitrophenol as it left the filters, so as to get his hands well covered with it. He then worked in the laboratory all morning and at the lunch hour, following the habit of careless workmen, he simply rinsed his hands under a tap. Then by washing his hands with a weak solution of ammonia he succeeded in recovering 0.48 gram of dinitrophenol. Repeating the experiment another day, he washed his hands with soap, and this time recovered only 0.13 gram.

#### EXAMINATION FOR AMINONITROPHENOL (DERRIEN'S REACTION).

Derrien's diazotation reaction, if properly conducted, is extremely sensitive and dependable.

It was feared that it would not be applicable to the urine of workmen engaged in D D fusion, as picric acid, after partial reduction in the organism (picramic acid), also gives Derrien's reaction under the same circumstances as dinitrophenol; but research made on workmen subjected to the fumes or dust of picric acid proved that their urine never gave Derrien's reaction.

The technique of Derrien's reaction as it was carried out by the investigators and the colorimetric process, which permits an arbitrary estimate to be made of the intensity of the reaction, are as follows:



The following liquids are placed successively in a test tube:

Urine to be analyzed.....	10 c. c.
Sulphuric acid 1/10.....	X drops.
Solution <sup>1</sup> of nitrite of soda 1/10,000 .....	XX drops.

The mixture is shaken, the tube placed under a stream of cold water,<sup>2</sup> and the following liquid added:

Freshly made saturated solution of naphthol B in ammonia....XX drops.

This is shaken, and cooled under the tap for a minute or two, and then 5 cubic centimeters of ordinary ether is added. The tube is corked and gently shaken; it should only be moved to and fro in order to avoid the production of too homogeneous an emulsion. The tube is left for a minute, and then shaken again; this process must be repeated for about five minutes so that the nitric derivative may be properly dissolved.

The tube is left to stand. The ether rises, slightly emulsified; the emulsion must be left to separate off, at least in the upper third of the etherized liquid. The color of this liquid is now compared with that of the following series of solutions placed in test tubes of the same diameter as that which contains the etherized liquid.

The nitric derivative obtained in the course of Derrien's reaction, starting from an aqueous solution of aminonitrophenol produces, in ether, a shade which may be compared to that of a more or less diluted aqueous solution of permanganate of potash. But, starting from urine, the shade of the etherized solution is not the same, as the ether has dissolved the urinary pigments; thus the etherized solution is about the color of "old wine." It may be compared fairly accurately to an aqueous dilution more or less extensive of the following solution:

Standard solution	{ permanganate of potash.....	0.20
	{ bichromate of potash.....	.75
	{ distilled water.....	1,000 c. c.

This "standard solution" keeps very well if the usual precautions for permanganate solutions are taken.

Dilutions should be made, when required for use, in test tubes carefully cleaned with sulphuric acid and permanganate of potash. The slightest trace of organic substance rapidly reduces these dilutions.

Twelve tubes of the same diameter are used and filled as follows:

One volume of standard solution—

Added to the following volumes of water:	Gives a color corresponding to reaction—
40	No. I
30	II
23	III
17	IV
13	V
9	VI
6	VII
4	VIII
3	IX
2	X
1	XI
0	XII

<sup>1</sup> The solution of nitrite of soda deteriorates fairly quickly—it should be renewed every five or six days. It is also necessary to make sure that the nitrite of soda used is really nitrite; several commercial samples seen were only nitrate of soda containing traces of nitrite.

<sup>2</sup> Prof. Derrien states that the recommendation published in several places to heat the mixture in boiling B. N. is a mistake. The diazotation should be effected cold; it would even be better to perform the reaction in ice.

This colorimetric method of estimating the intensity of Derrien's reaction has naturally no pretensions to accuracy; it was convenient to us for the purpose of expressing the relative value of the reactions and to enable those making similar experiments to compare their results with ours.

#### ELIMINATION OF DINITROPHENOL BY THE ORGANISM.

Dr. Guerbet states: "If we regard Derrien's reaction, which seemed to us the most interesting of all, as the test of elimination, and if we allow that it increases in intensity in proportion to the greater number of products eliminated, we find that the elimination of dinitrophenol may take place in every possible form."

(a) Some workmen eliminate intermittently; on some days elimination is positive and on others negative. In other cases the reaction is never intense.

(b) Some workmen eliminate daily and at a constant rate, and not increasingly—at least, for a certain time. Derrien's reaction is generally slight.

(c) Some workmen, after a period of steady elimination, begin to show a steadily increasing curve of elimination.

(d) Dr. Guerbet says that the investigators have never met with a case which started with steadily increasing elimination—i. e., a case in which increasing elimination was not preceded for several days by elimination at a steady rate.

Every time that a workman showed clinical signs of poisoning it was noted that there had been a steady increase in Derrien's reaction during some days preceding.

This points to a certain correlation between the two facts. It must, however, be noted that Derrien's reaction may increase, even progressively, to a fairly high rate without any clinical signs of poisoning being observed.

#### PREVENTION OF DINITROPHENOL POISONING.

The selection of workers in dinitrophenol requires most careful and complete examination of all the men and women before commencing work.<sup>1</sup> In every factory a pharmacist should be appointed to make the necessary urinary examinations for the surgeon, for it is absolutely essential to have a complete analysis of urine before allowing any one to work with dinitrophenol. This enables the physician to estimate whether kidneys and liver are normal; and normal action of these organs is essential to combat intoxication, even slight, from dinitrophenol.

<sup>1</sup> The investigators propose a system of "recruiting" of the workmen intended for the dinitrophenol shops based on a period of 15 days spent in the fusion shop in the course of which the workman's urine will be tested for Derrien's reaction. If, during this period, the urine shows no reaction, or slight and intermittent Derrien's reaction, the workman will be considered "fit for dinitrophenol." If, on the contrary, Derrien's reaction is constant throughout the workman's stay in the fusion shop, or else increases steadily for several days in succession, the workman will be considered "unfit for dinitrophenol."

Alcoholic subjects are particularly susceptible, and the toxic effect of alcohol and dinitrophenol combined is particularly to be feared. Workers presenting intermittent traces of albumen or diminution in the amount of urea or showing cardiac or gastrointestinal symptoms should be immediately suspended from such work.

#### SUPERVISION IN THE FACTORY.

The surgeon should visit each workroom daily for the purpose of—

(i) Judging of the resistance of the workers and obtaining knowledge of the slight illnesses which almost always precede serious attacks; and

(ii) Trying to educate the workers to take hygienic precautions. He should be able to influence the workers as to cleanliness, regular use of special protective clothing, etc.

(1) *Medical supervision of the workers.*—The surgeon should have at his disposal the results of examination of the urine made by the pharmacist attached to the factory. At each visit he should examine these results. In workrooms where dust and fumes are removed and where the workers are properly selected and show resistance, the Derrien reaction ought to be negative. If, however, it is positive and remains positive for several days or increases in intensity (the scale of intensity being indicated by comparison with test colors), any worker showing it must be examined each day and suspended from work as soon as he shows slight symptoms of intolerance—gastrointestinal trouble, weakness with sweating, and liver or renal trouble.

Progressive and daily increase in the intensity of the Derrien reaction is to be regarded as a sign of intolerance. It is not advisable before suspending a worker to wait until the Derrien intensity reaches the figure 4 or 6. Individual susceptibility does not enable us to fix a rule such as this as a matter of practice. The daily reaction should be regarded as of equal value with the signs of intolerance obtained from clinical examination.

*Alternation.*—The attention of managers is drawn to the great utility of alternation of employment, especially with dinitrophenol. The varying susceptibility of individuals makes it difficult to fix a definite rule as to the time during which a worker can work with impunity, but it is known that to effect sufficient recovery from intoxication the worker should be away at least a week. At the end of this time he has generally recovered strength and eliminated the poison. Fortnightly alternation is advised, but latitude must be allowed to managers to arrange alternation according to the necessities of output. The surgeon can judge of the system adopted only on the principles previously laid down, namely, whether it prevents fatigue and overpressure and if the period of rest is sufficient to allow disintoxication to take place.



(2) *Supervision as to cleanliness, etc.*—The surgeon should use his authority in educating the workers and persuading them, in the course of his daily visits, to safeguard their own health and to use the precautions provided for them. He can judge by the color of the workers' skin as to whether the workrooms are sufficiently ventilated and free from dust and fume.

The surgeon should observe whether the protective clothing is properly buttoned and effectively protects the skin. Respirators against dust can not be worn during the entire work period, and they are necessary only at the time when the powder or toxic vapors are given off. India-rubber gloves tend to macerate the skin, and it is a more useful plan to keep the skin of the hands dry by means of talc powder. Rubber gloves should be replaced by chamois leather which can be washed. Ointments containing oxide of zinc might be tried.

No food or drink should be consumed in the workrooms.

Notices as to washing the hands should be posted up.

The beverage advisable during work is sterilized milk. If that can not be obtained, the best substitute is weak tea or a diuretic mixture.

In acute intoxication the worker must be removed to the hospital. Long journeys in a motor car or carriage should be avoided. The surgeon of the factory should keep in touch with the invalid throughout his illness and give all information to the doctor treating the case. In fatal cases he should assist at the autopsy and make sure that the organs are properly examined.<sup>1</sup>

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#### ANNUAL MEETING OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

The annual meeting of the American Public Health Association will be held at Chicago, October 14 to 17, 1918. Subjects to be discussed will relate particularly to public health as connected with the war. It is announced that addresses will be delivered by the following speakers: Surg. Gen. Gorgas; Col. Victor C. Vaughan, and Maj. William H. Welch of the Army Medical Corps; Hon. Royal Meeker, Commissioner of the United States Bureau of Labor Statistics; Dr. George H. Vincent, president of the Rockefeller Foundation; Dr. Charles J. Hastings, president of the American Public Health

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<sup>1</sup> Treatment of severe cases does not appear to have been carried out so far in conformity with the directions laid down. Subcutaneous injections of oxygen or inhalation of the gas have been without benefit. Experiments, indeed, suggest that they are injurious in exaggerating the oxidations caused by the poison itself. As there is no known antidote, the best treatment seems to be to try and eliminate rapidly the poison by lavage of the blood and abundant supply of milk and alkaline drinks.

Extensive bleeding should be done (400 to 500 c. c.), followed by injection of the same amount of artificial serum. At the same time thirst should be treated by abundance of milk and alkaline water. Milk and alkaline water seems to have given the best results in certain severe cases that have been reported to us. An injection of morphine might be useful to lessen the dyspnea. Warm baths might have the same sedative effect.

Treatment should be in a hospital.

Dinitrophenol produces vasodilator effects, for which adrenalin has been tried but without effect.

Association; Dr. W. A. Evans, Chicago; Asst. Surg. Gen. Allan J. McLaughlin, United States Public Health Service; Dr. Ernest S. Bishop, professor of clinical medicine, New York University; Dr. Lee K. Frankel, treasurer American Public Health Association; Dr. Frederick L. Hoffman, Newark, N. J.; Miss Julia C. Lathrop, chief, United States Children's Bureau; Lieut. Col. Harry E. Mock, United States Medical Reserve Corps; Arthur E. Holder, Federal Board for Vocational Education; and Emery R. Hayhurst, Ohio State Department of Health.

The following are some of the special topics which will engage the attention of the sociological section of the convention: The relation of wages to public health as viewed by labor; The relation of wages to infant mortality; Corporation hospitals and dispensaries; Industrial accidents and diseases.

The program of the section on industrial hygiene will include papers on the problems of industrial hygiene, the problems of the war industries, and industrial hygiene in relation to the efficiency of the worker. Because of its particular interest to labor the tentative program of this section is given in full:

*The problems of industrial hygiene.*

The problems of industrial hygiene, by George M. Price, M. D., New York City.

The problem of organic dust in modern industries, by Dr. Frederick L. Hoffman, Newark, N. J.

The problem of industrial poisons, by J. W. Schereschewsky, M. D., Washington, D. C.

The problem of industrial fatigue, by Frederic Lee, M. D., New York City.

The problem of compensation for industrial disease, by Frederic L. Van Sickle, M. D., Olyphant, Pa.

The problem of women in industry, by Elizabeth B. Bricker, M. D., Harrisburg, Pa.

*The problems of war industries.*

The explosives industry, by W. G. Hudson, M. D., Wilmington, Del.

The textile industry, by A. J. Lanza, M. D., Pittsburgh, Pa.

The dye industry, by Alice Hamilton, M. D., Chicago, Ill.

The steel industry, by Loyal A. Shoudy, M. D., Bethlehem, Pa.

The shipbuilding industry, by Lieut. Col. Philip S. Doane, Philadelphia, Pa.

*Industrial hygiene in relation to the efficiency of the worker.*

Housing, by Royal Meeker, Washington, D. C.

Lighting, by Prof. C. E. Clewell, Philadelphia, Pa.

The clinic for vocational diseases, by Louis I. Harris, M. D., New York City.

Industrial medicine and surgery in relation to war and production, by Otto P. Geier, M. D., Cincinnati, Ohio.

There will also be papers upon laboratory, vital statistics, food and drugs, sanitary engineering, and general health administration subjects. The final program will be published in the American Journal of Public Health appearing about September 25.

## WORKMEN'S COMPENSATION.

### ANNUAL MEETING OF THE INTERNATIONAL ASSOCIATION OF INDUSTRIAL ACCIDENT BOARDS AND COMMISSIONS.

Following is the program of the fifth annual meeting of the International Association of Industrial Accident Boards and Commissions, at Madison, Wis., September 24 to 27, 1918.

*Tuesday, September 24.*

10.00 a. m.

Chairman, Fred M. Wilcox, Wisconsin.

Address of welcome.....Hon. Emanuel L. Philipp, Governor of Wisconsin.

Response.....Fred M. Wilcox, Wisconsin, president.

Important legislative and administrative developments of the year:

Ten-minute reports from each State.

*Luncheon 1 p. m.*

2 p. m.

Chairman, J. L. Gernon, New York.

Round-table discussion:

What is your commission doing to prevent accidents?

Ohio's plan of reaching the employer through monthly statistical reports.

Emile E. Watson, Ohio.

Wisconsin.....George P. Hambrecht.

California.....J. R. Brownell.

New York.....J. L. Gernon.

Ohio.....Victor T. Noonan.

Pennsylvania.....Lew R. Palmer.

New Jersey.....Lewis T. Bryant.

Massachusetts.....Wm. W. Kennard.

Ontario.....George A. Kingston.

U. S. Employees' Compensation Commission.....R. M. Little.

National Safety Council.....S. J. Wilson.

8.00 p. m.

Motion pictures: Accident prevention. Explained by Victor T. Noonan, Ohio.

Chairman, Charles S. Andrus, Illinois.

Administrative problems—Round-table discussion:

Statistics as an aid in administration.....W. H. Burhop, Wisconsin.

How should permanent partial disabilities be compensated?

T. J. Duffy, Ohio.

John Mitchell, New York.

William W. Kennard, Massachusetts.

Injuries arising out of and in the course of the employment.

George A. Kingston, Ontario.

Discussion.



*Wednesday, September 25.*

9.00 a. m.  
 Visit to Madison office.  
 Chairman, Fred M. Wilcox, Wisconsin.  
 Business meeting:  
 Report of secretary-treasurer.  
 Reports of committees.

Afternoon.

Visits to the Gisholt plant and other industrial establishments.

8.00 p. m.  
 Motion pictures.  
 Chairman, Harry A. Mackey, Pennsylvania.  
 Statistical session:  
 Need for uniform reports of exposure and how to obtain them.  
 A. H. Young, International Harvester Co.  
 L. W. Chaney, United States Bureau of Labor Statistics.  
 Why tabulate noncompensated accidents.....L. W. Hatch, New York.  
 The use of standard accident and compensation tables..W. H. Burhop, Wisconsin.

*Thursday, September 26.*

9.00 a. m.

Chairman, Dr. Charles M. Lemon, Wisconsin.  
 Medical session:  
 Better treatment for industrial accident cases.  
 Maj. P. B. Magnuson, Office of the Surgeon General, War Department.  
 Surgical treatment to prevent and minimize permanent disabilities.  
 Francis D. Donoghue, M. D., Massachusetts.  
 Discussion.  
 J. W. Trask, M. D., United States Employees' Compensation Commission.

2.00 p. m.

Chairman, O. J. Fay, M. D., Iowa.  
 Compensation in cases of preexisting disease aggravated by accident.  
 William W. Kennard, Massachusetts.  
 Meyer Lisener, California.  
 How are medical questions handled in your jurisdiction?  
 Washington.....J. W. Brislawn.  
 Wisconsin.....Thomas F. Konop.  
 Massachusetts.....William W. Kennard.  
 New York.....William C. Archer.

8.00 p. m.

Motion pictures.  
 Chairman, F. D. Donoghue, M. D., Massachusetts.  
 Medical round table:  
 Selection of the physician under compensation laws.  
 J. W. Mowell, M. D., Washington.  
 F. D. Donoghue, M. D., Massachusetts.  
 Raphael Lewy, M. D., New York.  
 Should medical service be limited?.....Charles H. Lemon, M. D., Wisconsin.  
 F. M. Williams, Connecticut.  
 Need of medical statistics for compensation purposes.  
 Charles H. Verrill, United States Employees' Compensation Commission.  
 Discussion.

*Friday, September 27.*

9.00 a. m.

Chairman, Fred M. Wilcox, Wisconsin.

Business meeting.

Chairman, R. M. Little, United States Employees' Compensation Commission.  
Vocational rehabilitation for military cripples.

C. A. Prosser, Federal Board for Vocational Education.

How deal with crippled workers.....T. Norman Dean, Ontario.  
Conservation and reclamation in the industrial army.Lieut. Col. H. E. Mock, Office of the Surgeon General, War  
Department.

Problem of the handicapped man in industry.

Carl Hookstadt, United States Bureau of Labor Statistics.

Discussion.

Afternoon.

Seeing Madison.

**HISTORY AND THEORY OF WORKMEN'S COMPENSATION INSURANCE  
RATES.**

The making of scientific insurance rates is probably the most complex problem in the whole field of workmen's compensation. Numerous articles and pamphlets have been written discussing different phases of compensation insurance rates. A recent contribution to the literature of this important subject has been made in a report just published by the National Workmen's Compensation Service Bureau.<sup>1</sup> This volume contains a brief account of the history and theory of rate making and includes the report of the semiofficial actuarial committee appointed to consider the various factors entering into the making of rates. It also includes chapters on the basic manual, history and cooperation in rate making and on merit rating, and contains the State law differentials, computed as of January 1, 1918, by the actuarial committee of the National Workmen's Compensation Service Bureau. The main part of the report is devoted to a discussion of the proper values of the several factors entering into the making of scientific rates.

Before discussing these various factors it may be advisable to enumerate the successive steps by which workmen's compensation rates for a given State are derived. Let the State in question be one which has just enacted a compensation law and which consequently has developed no loss experience. Ultimately the State insurance rate or premium will be the product of two factors—the probable actual losses known as the “pure premium” and the cost of administration known as the “expense loading.” Insurance rates, however, always cover the probable future losses, inasmuch as such rates

<sup>1</sup> Report of the work of the augmented standing committee on workmen's compensation insurance rates—1917; together with a brief account of the history and theory of the making of workmen's compensation insurance rates. Issued by the National Workmen's Compensation Service Bureau, New York City, March, 1918. vii, 173 pp.

must necessarily be issued in advance. It is the duty of the insurance actuary, therefore, to compute the probable future losses for each industrial classification. Thus at the very beginning there are introduced certain conjectural factors whose values are in dispute among insurance experts. In the determination of rates, therefore, the first step is to utilize the loss experience developed under the laws of other States. This is necessary not only in the case of new States, but also for States having compensation experience. Since the probable future losses are computed from past experience it follows that the accuracy of such computed losses is dependent upon the volume of this experience. This volume or exposure should be sufficient to eliminate the element of pure chance, i. e., it must be dependable. But few of the States have as yet developed a sufficient pay roll for most of the classifications to furnish dependable losses. It is consequently necessary, as already noted, to combine all available experience for each classification. Such experience, in order to be serviceable, must be comparable.

The cost of a given number of accidents naturally varies among the States according to the amount of benefits provided. Accordingly it is essential to reduce all pure premiums to a common denominator. This is accomplished through the application of "reduction factors," the combined losses thus obtained being known as the basic pure premium.

The loss cost or pure premium is expressed in percentage of yearly pay roll. For example, the total annual losses are divided by the total pay roll, and the result multiplied by 100, since \$100 of pay roll is taken as the unit. A pure premium of \$1.35, therefore, means that the given classification has produced a loss cost of \$1.35 for every \$100 of pay roll. In computing the relative value of each act it is necessary to have a base or standard of measurement. The recognized standard is the original Massachusetts act of 1912. The cost of compensation under this law is taken as unity and the laws of other States are assigned values showing the relation of cost under their provisions to the cost under the Massachusetts act. The ratios thus determined are called "law differentials." These differentials are obtained through the application of the Rubinow Standard Accident Table to the basic Massachusetts law and to the laws of all other States for which differentials are desired. This standard table is a statement of the probable severity distribution of any given 100,000 accidents. It is assumed that, given a sufficiently large number of accidents and sufficiently diversified industries, the severity distribution will not vary greatly in different localities. The benefits provided under each compensation law are then applied to these accidents and, in addition, the medical benefits of the law



are properly valued. For the conversion of the loss cost or pure premium of each State into the basic pure premium it is simply necessary to multiply the actual loss cost by the reciprocal of the law differential, known as the reduction factor.

The basic pure premiums having been obtained the next step is their conversion into the various State pure premiums for rate-making purposes. This is accomplished through the application of such differential factors as are applicable to each State in question. The chief of these factors is the law differential. Other factors to which more or less weight is given include the following: (1) Differences in interpretation of workmen's compensation acts; (2) underestimate of outstanding losses; (3) increasing claim cost due to the age of the act and to abnormal industrial activity; (4) occupational diseases; (5) variations due to merit rating; and (6) variations in accident frequency between States. The basic pure premiums, therefore, when subjected to the necessary differential factors, will produce the pure premium or probable loss cost for each State. Finally the State pure premium properly loaded for administrative expenses, profits, and catastrophe hazard gives the gross premium or insurance rate for each State. The expense and profit loading factors, however, are based, not upon the pure premium, but upon the gross premium. The latter is obtained by dividing the State pure premium by the reciprocal of the expense and profit loading factor. To illustrate, assume that the State pure premium is \$1.35 and the factor for expenses and profits is 40 per cent; then the gross premium will be  $\$1.35 \div .60$  (i. e.,  $1 - .40$ ) or \$2.25. Finally to this is added a fixed amount, usually one cent, for catastrophe hazard. An analysis of these several factors is given in the following summary of the proceedings of the conference on workmen's compensation insurance rates, held in February, 1917; it includes a summary of the recommendations of the actuarial subcommittee.

#### LAW DIFFERENTIAL.

The law differential is an important differential factor. Its function is to measure the relative cost of workmen's compensation acts. For this purpose a particular compensation act is chosen as the basis. This act may be one in force at present; it may be one that has been discontinued, or it may be a hypothetical act. The law differential for any State is determined by comparing the cost of compensation benefits for the act of that State with the cost of benefits under the basic act. The law differential is of value for two reasons. In the first place it may be used as a reduction factor whereby the benefits or losses under the compensation acts of the several States may be reduced to a common level. This process is essential in order that the broadest possible experience may be brought together to

serve as the basis upon which to establish pure premiums. In the second place the law differential may be used to project the basic pure premiums and thus to obtain pure premiums applicable to the provisions of the compensation act in any particular State.

The committee's report deals entirely with the conclusions concerning the proper method of calculating law differentials. Two separate and distinct methods of computing law differentials were investigated. The first method may be termed the "experience method," which involves the use of actual pure premium experience for the calculation of law differentials. The second method may be termed the "accident distribution method," and involves the application of the benefit provisions of the several compensation acts to a distribution of accidents according to the nature of the injury—i. e., according to the Standard Accident Table.

Several members of the committee urged that for New York, at least, the law differential should be calculated on the basis of experience by a comparison of pure premiums representing actual losses in New York with the basic pure premiums adopted for Massachusetts. The decision made was that while this method might be proper, if complete statistics were available, the existing statistical situation would not justify such procedure.

It was also suggested that a single reduction factor and a single differential for each State would be inequitable because it would not allow for the difference in composition of losses between industries, although it might be accurate as an indication of the average variation between States. It was therefore proposed that the law differential should be graded, or, in other words, that a system of law differentials varying with the basic pure premiums should be established. As a preliminary test, actual losses under the New York law were compared with losses which the same pay roll would have produced if the losses had been at the rate indicated by the basic pure premiums adopted. It was found that a ratio of losses on the pure premium basis to losses actually experienced varied from 0.915 for classifications with a pure premium ranging from \$0.03 to \$0.10, inclusive, to 1.828 for the pure premium group ranging from \$1.86 to \$7.42.

Another method proposed provided for the graduation of differentials by the kind of benefit paid. Under this scheme the basic pure premiums were to be divided into several parts, according to type of benefit, and the proportion of the pure premium referable to each type was to be treated separately. These types of benefits may be variously classified, such as death, permanent disability, temporary disability, medical benefits, etc.

The committee recognized that the use of experience differentials would simplify many parts of the work, and it was maintained by

some members that in other ways the use of such differentials was to be preferred. Such a differential of necessity combines in itself all of the factors by which one would pass from the basic pure premium to the State pure premium for the latest experience available, and the resulting problem would be merely to pass from such latest experience to the probable experience of the period for which the rates are to be made. The majority of the committee, however, decided to retain for the present the established system of single law differentials.

The following law differentials were computed by the actuarial committee, National Workmen's Compensation Service Bureau, for 28 compensation laws as amended down to and including January 1, 1918:

State.	Law differential.	State.	Law differential.
California.....	1.70	Minnesota.....	1.35
Colorado.....	1.09	Montana.....	1.01
Connecticut.....	1.35	Nebraska.....	1.48
Delaware.....	.90	New Jersey.....	.97
Idaho.....	1.38	New Mexico.....	.95
Illinois.....	1.49	New York.....	1.91
Indiana.....	1.36	Oklahoma.....	1.20
Iowa.....	1.29	Pennsylvania.....	1.05
Kansas.....	1.43	Rhode Island.....	1.25
Kentucky.....	1.44	South Dakota.....	1.18
Louisiana.....	1.13	Texas.....	1.50
Maine.....	1.02	Utah.....	1.30
Maryland.....	1.33	Vermont.....	.94
Michigan.....	1.04	Wisconsin.....	1.69

#### DIFFERENCES IN INTERPRETATION OF COMPENSATION ACTS.

The committee recognized the fact that the absence of administrative compensation commissions influenced the cost of compensation. The two States affected by this particular item were New Jersey and Illinois. It was contended that the claim costs in these States during the period under consideration remained on a level rather than in accordance with some increasing law as in other States. For the purpose of reducing the experience to the basic pure premium the loss cost of these two States was increased—the New Jersey losses by a factor of 1.10 and the Illinois losses by a factor of 1.05.

#### UNDERESTIMATES OF OUTSTANDING LOSSES.

Workmen's compensation experience is kept by policy years; that is to say, the experience on all policies issued in a single calendar year is treated as a unit. Pure premiums consist of losses actually paid and losses still outstanding. Although these outstanding losses decrease from year to year, they constitute from 25 to 35 per cent of the total losses on the date the experience is first



reported. It can be seen, therefore, that any serious discrepancy in their value will have a considerable effect upon the indicated pure premium. Though each claim is carefully analyzed, and an estimate is established upon its merits, this method of calculation will produce an underestimate in the grand total of incurred losses. The committee therefore recommended that the basic pure premiums be increased by 2 per cent in order to correct any error for underestimation of losses. The reasons for such underestimation are many. A claim will be considered closed and will be so reported, but later it will be reopened, and the cost will be increased. Thus a medical bill may be overlooked, a serious injury may not be immediately recognized, adverse medical developments such as ankylosis or blood poisoning may occur, permanent disability cases may not be detected when the experience is first reported, or there may be delay in reporting claims. Failure to anticipate these developments seems to be unavoidable unless an arbitrary method of valuation is employed.

#### INCREASING COST DUE TO AGE OF ACT.

The committee recognized the fact that the cost of workmen's compensation always increases for a considerable period of time following its inception. Two causes are assigned for this tendency. In the first place, the interpretation of workmen's compensation laws by administrative claim bodies has become increasingly liberal. In the second place, as employees become familiar with the act relatively more claims are presented and prosecuted. When compensation is introduced and takes the place of employers' liability, workmen are inclined to waive their rights in case of minor injuries. As time passes, however, the principle of compensation becomes firmly established and the compensation law is subjected to greater and greater use by the workmen. In view of these facts the committee decided that with unity representing the cost of payments during the first year of an act, the cost during succeeding years would be as indicated in the following table:

Policy year under compensation act.	Cost of compensation.
1	1.00
2	1.10
3	1.15
4	1.18
5	1.20

#### INCREASING COST DUE TO ABNORMAL INDUSTRIAL ACTIVITY.

Abnormal industrial activity, with its employment of inexperienced help and rearrangement of occupations, has a tendency to increase the accident rate and consequently compensation costs. A factor to take care of this increasing cost was proposed by the committee.

This factor was designed to accomplish two things. First, it was realized that the experience available for the establishment of basic pure premiums was accumulated during a period of subnormal business activity. The first function of the abnormal industrial activity factor therefore was to raise the basic pure premiums to the level of conditions represented by normal industrial activity. The second function was to bring these premiums to the level of the present and future abnormal activity whenever this was necessary.

The increasing cost due to abnormal industrial activity, according to the committee, might be specifically charged to two causes. First, the intense business activity had caused establishments to speed up. This in turn had resulted in the employment of inexperienced help, in the overworking of help, in the casting aside of safety campaigns and safety measures of one kind and another, in the overcrowding of factories, etc. Second, industrial activity had caused a shift in employment. This shift was doubtless very general and affected workers in all occupations. Along with this shift of labor there was undoubtedly some tapping of labor sources not ordinarily resorted to. On the whole, the shift in labor placed many workmen in positions which they had not had sufficient training to fill efficiently and which they never would have been called upon to fill under normal conditions.

The factor adopted by the committee was 0.15 for States with intense activity, the understanding being that this factor was to be combined additively with the increasing cost factor due to the age of the act. It was further understood that the value of 0.15 was subject to modification in accordance with the actual industrial conditions in each State. As a matter of practice, factors ranging from 0.05 to 0.15 were employed in the projection of the basic pure premiums.

#### INDUSTRIAL DISEASES.

The compensation acts of certain States (California and Massachusetts) apply to industrial diseases as well as to accidental injuries, but in establishing basic pure premiums losses on account of industrial diseases were eliminated from the experience. Therefore, wherever this hazard is covered, it is necessary to increase the rate by an appropriate amount.

All classifications have some industrial disease hazard. To cover this, 1 per cent is added to the pure premium for each class. In addition, certain classifications, such as lead manufacture, have specific industrial disease hazards for which an additional pure premium is added. These industrial disease pure premiums have been calculated on the basis of the original Massachusetts act and must therefore be multiplied by the law differential when applied to other States.

## VARIATIONS DUE TO MERIT RATING.

The object of merit rating is to obtain justice as between employers in the same classification. The employer whose plant is above the standard receives a credit upon his insurance rate, while the plant below the standard is penalized by being given a higher rate. An ideal merit-rating system should produce a balanced schedule. In other words, all deductions on account of merit rating should be balanced by additions. However, so far merit rating has produced a net credit and has therefore resulted in a reduction of the average rate.

The augmented standing committee, after reviewing the results of schedule rating in the several compensation States, recommended that a special loading of 9 per cent of the final rate be added to the pure premiums for classifications subject to schedule rating in all States except Massachusetts and Pennsylvania. The committee also recommended a loading of 1 per cent of the gross rate on all classifications for all States, other than Massachusetts, where experience rating is in practice.

## ACCIDENT FREQUENCY.

The accuracy of the final State rate is dependent to some extent upon the validity of the assumption that the capacity of risks to produce accidents is constant for all States. If there are large variations in the accident rate per unit of workers in any classification, even though the cost of compensation per accident may be properly computed, the final result obtained by using the rate formula will be in error because a rate must adequately measure and combine accident frequency and the cost of paying for accidents when they are produced. The character of the working population, the conditions surrounding industry, differences in industrial processes, the physical equipment of factories, the attitude of the public and the employing class toward labor, climatic conditions, and the degree to which safety work has been developed, all have a bearing upon the rate of accident production. As all States are not similar as respects these conditions, it may be assumed that the rate of accident frequency will vary somewhat. However, because no conclusive data could be obtained, the committee recommended that this factor should not be taken into consideration.

## CATASTROPHE HAZARD.

Catastrophes in workmen's compensation insurance are single losses so unusually large that the experience of individual classifications or of individual insurance carriers is not a sufficient guide to the probability of their occurrence. To take care of this factor the committee recommended a flat addition of 2 cents to the gross premium rate for New York and of 1 cent for other States.



## EXPENSE LOADING.

All of the preceding factors are concerned with pure premiums. Their product and summation should produce the probable actual losses for a given State. To obtain the gross premium rate there must still be applied the expense-loading factor. This includes expenses of administration and taxes. The committee recommended an expense loading of 40 per cent of the gross rate. However, the expense ratio varies with the scale of benefits provided by the several States. In other words, the higher the benefits the lower the expense ratio. The committee gave effect to these considerations and recommended the following scale of expense loading:

For States having a differential of—	Percentage loadings.
Less than 1.25.....	42½
1.25 to 1.49.....	40
1.50 to 1.74.....	37½
1.75 and over.....	36

The committee also recommended a profit loading of 1½ per cent of the gross rate to provide a 5 per cent return on the capital invested.

## CALCULATION OF STATE MULTIPLIERS.

In order, therefore, to calculate final rates to be applied to classifications under the various existing workmen's compensation laws, the factors, other than those expressed as flat additions to the rate, are combined in a multiplier which is applied to the basic pure premium increased by an industrial disease pure premium (if any). To the result is added the catastrophe-hazard loading to secure the final rate. This process is expressed by the following formula:

$$(A+B) \times \left\{ \frac{C \times D \times E \times F \times G \times H}{1 - (J + K + L)} \right\} + M = R$$

Where—

- A=Basic pure premium.
- B=Industrial disease pure premium.
- C=Law differential.
- D=Increasing cost factor.
- E=Underestimate of outstanding losses factor.
- F=Industrial disease factor.
- G=Schedule rating factor.
- H=Experience rating factor.
- J=Expense loading.
- K=Profit loading.
- L>Loading for the maintenance of administrative commission.
- M=Catastrophe loading.
- R=Final rate.

## NEW WORKMEN'S COMPENSATION LAW OF PORTO RICO.

After exactly two years of operation the first compensation law of Porto Rico (see Bul. 203 of the U. S. Bureau of Labor Statistics, pp.

821 to 830) was superseded on July 1, 1918, by a new statute.<sup>1</sup> The mode of administration by a workmen's relief commission is unchanged, the commission continuing to administer a relief fund to which employers must contribute.

The scope of the law is considerably altered, being extended so as to cover common carriers by railroad, public employment, and also industries employing three or more persons instead of only those employing five or more. Injuries compensated are differently defined, the law covering all personal injuries by accident occurring to a laborer while engaged in his work, instead of only those arising out of and during the course of employment, subject to the same limitations as in the earlier law with regard to injuries due to intoxication, gross negligence, etc.

Under the earlier act death benefits were simply the sum or the balance of any sum that the employee would have received if the injury had not terminated fatally. The present award is a maximum of from \$3,000 to \$4,000, the amount to be graded according to the earning capacity of the deceased workman and the number of beneficiaries. One-half the weekly wages are allowed in cases of temporary disability, instead of three-fourths as formerly, the maximum and minimum weekly amounts remaining the same. The amount payable for permanent total disability may be not less than \$2,000 nor more than \$4,000, in proportion to the rate of wages earned at the time of the injury.

Taken altogether the new law is a decided advance over its predecessor, both in scope and liberality.

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#### WORKMEN'S COMPENSATION EXPERIENCE IN ONTARIO, 1917.

The report of the Workmen's Compensation Board of Ontario,<sup>2</sup> covering the third year's (1917) operation of the act, records 36,514 reported accidents during the year, an increase of 39.9 per cent over the preceding year. In 6,419 cases (17.6 per cent) no claim for compensation was filed; in 1,298 cases (3.6 per cent) the claim was rejected by the board; in 3,008 cases (8.2 per cent) medical aid only, amounting to \$83,514.07, was paid. The medical aid provision was in force only six months during the year, as noted hereafter. A statement of the compensation awarded and accidents compensated during 1917, which includes 4,028 claims carried over from the preceding year, shows a total of 28,702 cases (including the 3,008 cases in which medical aid only was paid) finally or partially disposed of, with compensation awarded amounting to \$2,913,085.81. This is an average

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<sup>1</sup> The new law will be published in full in Bul. 243 of this bureau.

<sup>2</sup> Ontario. Workmen's compensation board. Report for 1917. Toronto, 1918. 69 pp.

award for 25,694 cases of \$113.38 per case. The figures for 1917 show an increase over 1916 of 57.6 per cent in the number of cases disposed of, and an increase of 44.8 per cent in the amount of compensation awarded. Of the 28,702 cases awarded compensation and medical aid, 25,847, or 90.1 per cent, were temporary disability cases, 2,432, or 8.5 per cent, were permanent disability cases, and 423, or 1.5 per cent, were death claims.

The report states that the administrative expenses of the board amounted to \$133,629.50. This gives a cost of 4.6 cents for every dollar of compensation awarded. Of the total amount, \$100,000 was paid by the Province, \$28,740.98 was charged against schedule 1 industries,<sup>1</sup> and \$4,888.52 against schedule 2 industries. The assessments collected from approximately 14,000 employers in schedule 1 industries, employing about 277,750 full-year workers, amounted to \$2,376,362.89 on an estimated pay roll of \$256,580,206.63. The total compensation paid by these employers was \$2,289,529.44. Thus the cost of administration borne by schedule 1 industries was 1.21 per cent of the assessments received during the year, or 1.26 per cent of the compensation awarded. The total value of awards in schedule 2 during the year was \$623,556.37, of which \$392,404.71 was pension awards.

The report notes that a feature of the Ontario act "which must be highly satisfactory to both workmen and employers is the fact that practically all the money contributed by employers goes to the workmen or their dependents as compensation, or is paid for medical aid."

Workmen, in addition to receiving compensation, are now enjoying the benefit of the new medical aid provisions; and, notwithstanding the additional expense involved, it has been found possible with the large contribution now made by the Province toward expenses, to reduce the employers' rates of assessment. This has been done retroactively for 1917 in most of the important classes of industry. The rates are now very much lower than those originally fixed when the act first went into operation. The average rate per \$100 of pay roll under the rating schedule originally adopted for 1915 was (as estimated) \$1.64; the average rate for 1915 under the schedule as finally adjusted was \$1.27; the average rate for 1916 under the schedule as finally adjusted was \$1.09; and the average preferred rate for 1917 (as estimated) is 98 cents.

An amendment to the Ontario workmen's compensation law, effective July 1, 1917, entitles workmen, whether disabled more or less than seven days, during a period not exceeding one month from the commencement of disability, to medical and surgical aid and hospital and skilled nursing services necessary as a result of the accident. This in schedule 1 industries is provided by the board

<sup>1</sup> Schedule 1 embraces 34 classes of general industries which are under the assessment or State insurance system. Schedule 2 includes railways, municipal corporations, etc. These industries are not under the insurance system, the employers being individually liable for payment of the compensation fixed by the board for accidents as they occur.



or as the board may direct or approve and is paid for out of the accident fund. In schedule 2 industries it is provided by the employer individually. Pursuant to authority contained in the medical aid amendment, a regulation was issued by the board requiring all employers having more than 15 workmen usually employed to provide and have in charge of some suitable person a first-aid kit, and requiring every employer having 300 or more workmen usually employed to provide at his factory or plant an emergency first-aid room, with necessary equipment and supplies, and to have the same in charge of a clerk, nurse, or other person who has taken a recognized course of study in first aid to the injured.

## LABOR LAWS AND REGULATIONS.

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### EMERGENCY SUSPENSIONS AND VARIATIONS OF LABOR LAWS.

The necessity for maximum production and the disturbance of the labor supply by reason of the war led a number of States to consider the advisability of suspending or modifying the provisions of certain laws enacted for the protection of labor. This was due to the opinion that the laws limiting the hours of labor, the age of employment of children, requiring a weekly day of rest, and the like, were restrictive of production. Fortunately but few legislatures took action in the directions indicated, and the general tendency has been to maintain the standards in existence before the war; while, as the result of the measures adopted by Federal agencies, there has even been an extension of protective legislation within the field of the activities of such agencies.

The following summary presents the laws and rulings that look toward a relaxation of standards on account of the present condition, the laws noted being those enacted in 1917:

The Navy appropriation act of 1918 (ch. 180, approved Mar. 4, 1917) authorizes the President to suspend, in cases of national emergency, the law limiting to eight per day the hours of work on contracts with the United States; the act also provides that time and one-half shall be paid for work in excess of eight hours. The Alaska law fixing an eight-hour day for all wage earners in the Territory (ch. 55, acts of 1917) also contains a provision for suspensions and modifications on request of the Council of National Defense or the Secretary of the Interior, the same to be effective only during the period of emergency specified, and not longer than the duration of the present or any future war which affords a basis for such emergency action.

More general are the provisions of the laws of three New England States. The legislature of Connecticut (ch. 326) authorizes the governor to modify or suspend by proclamation the laws of the State relating to labor for definite periods during the present war. The law modified must be specified in the proclamation, and the period of duration of the change fixed, but this may be extended for further definite periods not beyond the close of the war; the power is to be exercised only upon request of the Council of National Defense on the ground that the action is essential to the national defense. Quite similar provisions are found in an act of the New Hampshire Legislature (ch. 194); while in Vermont (No. 172) the commissioner of in-

dustries is authorized, with the approval of the governor, to suspend the operation of the laws of the State relating to the hours of labor of women and children, such suspension to be limited to the period of the war.

The State of Georgia has laws of rather unusual strictness on the subject of the running of freight trains on Sunday; these are suspended (p. 204) during the existence of the war "in order to avoid congestions and to render more efficient, expeditious, and certain the transportation services which the railroads operating in the State of Georgia may be called upon to render."

The production of an adequate food supply appealed to the Legislature of Massachusetts as a reason for waiving the Sunday law of that State in so far as it forbade the cultivation of land and the raising, harvesting, conserving, and transportation of agricultural products (ch. 207). This waiver extends to January 1 following the termination of the war. A law of California (ch. 192) adopts a different method for the accomplishment of a like result by authorizing the State board of education, with the approval of the governor, to close the schools of the State for a portion of the year if it is thought necessary, as a matter of war emergency, to release labor for planting or harvesting the crops, or for other agricultural or horticultural purposes. A similar provision appears in a New York statute (ch. 689) which authorizes the suspension of the compulsory school attendance law of the State for the period of the war and two months thereafter in order that the children may engage in agricultural and garden work. Such work is to be carried on under rules formulated by the commissioner of education, supervision to be provided for from the local school funds; credit as for school work may be given for work properly done.

Besides the general provisions found in the law of New Hampshire already noted, a provision was incorporated in the act amending the law governing the employment of women and children (ch. 196), making the provisions of the act inapplicable to the manufacture of munitions or supplies for the State or the United States while this country is at war. Limited variations are permitted in the Pennsylvania act governing the employment of women, whenever in the opinion of the industrial board such modification is desirable and warranted and will not be injurious to the health and welfare of the women affected or of the public (No. 254). No reference is made in this act to war emergency. The modification may not affect the hours of labor established by law, nor does the act apply to females employed in manufacturing establishments.

In connection with this action of the Pennsylvania Legislature attention may be called to the reply of President Wilson to the inquiry of



Gov. Brumbaugh, of Pennsylvania, as to the desirability of enacting laws providing suspensions of labor standards, the reply being to the effect that "it would be most unfortunate for any of the States to relax the laws by which safeguards have been thrown about labor," the result of such action being probably a slackening of activity rather than an increase of it. However, a considerable number of suspensions of the Federal 8-hour law have been made by the President under the provisions of the act of March 4, 1917, noted above; many of these relate only to specific undertakings, though orders of March 24 and April 28, 1917, are of more general effect, covering contracts for ordnance, ordnance stores, and other military supplies and material, contracts for buildings at arsenals, for fortification work, and any military building or any public work which, in the judgment of the Secretary of War, is important for national defense.

The laws creating State councils of defense confer quite a wide range of authority on these bodies for the purpose of industrial adjustment and correlation, that of Massachusetts (ch. 392) going so far as to direct the State board of labor and industries to appoint a committee of five persons, not members of the board, to consider applications by employers of labor for the suspension or modification of laws claimed to interfere with the prosecution of work which the employer is doing or about to engage in, such work being required by an emergency arising out of the existing state of war. If the claim is approved, a permit may be granted allowing variations of specified kinds and for a definite time, applicable only to the particular work or establishment for which the permit was desired.

No information is at hand relative to the steps taken, if any, by the authorities of Connecticut, Massachusetts, New Hampshire, and Vermont under the provisions of the acts of those States noted above. However, something of the effects of war-time pressure on industry can be discovered by examining reports of the State industrial commission of New York as to action taken by this body, under a permanent provision of the law of this State (sec. 8-a of ch. 31 of the Consolidated Laws of the State, as amended by ch. 648, Acts of 1915). This section requires a weekly day of rest for all employees and workmen in the State, employed in any manufacturing or mercantile establishment, with certain exceptions. If the enforcement of this law should involve practical difficulties or unnecessary hardship, variations may be allowed by the industrial board, under conditions established by rules of the board, and applicable to other situations where the facts are substantially the same. Recent typical allowances of variations under this provision are those granted where

Federal contracts are involved, certified by the proper authorities to be urgent. Thus, in the case of the Tupper Lake Chemical Co., a small group of men, representing day and night forces, are permitted to maintain continuous operation throughout the week, apparently working 12-hour shifts. In the case of the Bausch & Lomb Optical Co. the work is not necessarily continuous, but it was found that compliance with the weekly day of rest law would involve practical difficulties and unnecessary hardship, and not exceeding 150 men are authorized to be employed for 7 days per week; no reference is made to the hours of labor. These grants were made May 18, 1918, to be effective until July 1, 1918, but subject to an extension if at that date the Secretary of War should further certify that the emergency continued. On March 27, 1917, the Curtiss Aeroplane & Motor Corporation was authorized to employ certain workmen seven days per week for six months, on certification of the urgency of the undertaking. This work was not continuous, and the hours of labor were evidently optional, since the second renewal of the permission, on May 15, 1918, authorized the employment of workmen for seven days per week, and for as many hours as the employers wished, with the understanding that eight-hour shifts will be arranged as soon as possible, or that persons working seven days shall work not more than eight hours per day. The H. H. Franklin Manufacturing Co. asked for a waiver of the weekly day of rest law on the ground of the urgency of its work in completing a contract with the British Government. This was allowed on the same terms as those granted in the case of the Bausch & Lomb Optical Co.

The Federal Railroad Administration advised the State industrial commission of the imperative need of repair work in various railroad shops, and on this ground seven days of labor was authorized, in some cases for the duration of the war, and in others for a limited period.

A third class of cases involves the preservation of perishable food products, in one instance a fish company being authorized to have men engaged in cleaning fish work seven days per week, but not over eight hours per day, in order to get fish to market. In the case of manufacturers of dairy products the local shortage of labor was assigned and admitted as sufficient reason for the employment of workmen for seven days per week, the permit in each instance to terminate on September 1, 1918.

In all these cases the permission for seven days of work per week is limited to adult males, and in most cases the maximum number of persons who may be employed is indicated, in some instances the actual numbers and classes of workmen being specified. The necessary inference is that the industrial commission does not look with

favor upon any general or indiscriminate departure from the standards fixed by law.

In connection with the foregoing, attention may be called to the fact that it is only when persons are employed directly by the Government that they are exempt from the control of the State laws of the locality in which they are at work. A ruling was recently handed down in a Pennsylvania case stating that employees directly employed by the United States Government and paid by it are not subject to the restrictions of the State laws. This led to the conclusion in some quarters that employees of contractors with the United States were likewise exempt from such limitations. This question was submitted to the legal department of the New York Industrial Commission, and the conclusion was reached, and is being enforced, that where private contractors are engaged on contracts with the Federal Government, and their employees are paid from private funds, the work must be done in accordance with the provisions of law established by the State.

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#### RETIREMENT SYSTEM FOR LIGHTHOUSE EMPLOYEES.

The long considered question of retirement for civil employees of the United States has received its answer in so far as a single branch of the service is concerned. An act of June 20, 1918 (Public No. 174, 65th Congress), provides that officers and employees in the field service or on vessels of the Lighthouse Service, other than those employed in district offices and in shops, may, after reaching the age of 65 and having 30 years of active service to their credit, be retired at their own option. Retirement is compulsory at the age of 70. The retirement pay is to be based on the average annual pay for the last five years of service, one-fortieth of this amount being allowed for each year of active employment in the Lighthouse Service or other branch of the Government having a retirement system, the total not to exceed thirty-fortieths of such average.

Just as the provision for compensation for injuries incurred in the course of duty found its first expression in the Life Saving Service in 1882, extending to the Railway Mail Service in 1900, and to a larger class of employees in 1908, becoming general by the act of 1916, so it may be presumed that this initial retirement act for civil employees is but the forerunner of a complete system of retirement for Federal employees; however, with the active support of a considerable number of department heads, and the widely extended discussion on the subject for the past several years, it does not seem probable that the next steps in retirement will be so long delayed as was the case in the field of compensation.



**INDUSTRIAL DISPUTES INVESTIGATION ACT OF CANADA.**

Amendments of considerable importance to the Industrial Disputes Investigation Act of 1907 were made at the recent session of the Dominion Parliament (ch. 27, approved May 24, 1918). The first of these provides against the termination of the employment status for the purposes of the act, by reason of any strike or lockout, or by reason of a dismissal where, within 30 days after the dismissal, application is made for a board of conciliation and investigation under the provisions of the act. Another amendment provides for the continuance in existence of a board once formed, not only until the original report is signed and transmitted to the minister of labor, but also, following any recommendation of the board, for the purpose of considering questions as to the meaning or application of the recommendation or of any settlement agreement drawn up by it. The purpose of this amendment is to make effective an amendment to a later section, which authorizes the submission of such questions to the chairman of the board by the minister of labor on the application of either party or on his own initiative, the total result being to secure the continuing existence of the board until a final adjustment and understanding of matters is arrived at. Flexibility of procedure is also secured by an amendment authorizing the minister to submit to the board other matters than those originally referred to it, but which are found to be involved in or incidental to the submission.

Perhaps the most important change is that authorizing the minister of labor to establish a board of conciliation and investigation under the act on the application of any municipality interested or of the principal officer thereof, or on the motion of the minister himself; as alternative to this the minister may, either with or without an application from any interested party, recommend the appointment of a commissioner or commissioners, under the provisions of the inquiries act, to inquire into a dispute, strike, or lockout, or into any matters or circumstances connected therewith. The minister may also, either voluntarily or on request, make any inquiries he thinks fit regarding industrial matters, and may secure the taking of such steps as seem calculated to procure industrial peace and promote conditions favorable to the settlement of disputes. What consequences will follow the rendering of an award of findings by boards or commissioners thus created without the request or consent of the parties to the dispute can only be inferred. The original act provides that recommendations shall be binding upon a party agreeing in advance that such shall be the effect. The new provision is comparable to a compulsory investigation act at least, and the findings of a board or commissioner appointed as herein provided would certainly carry great weight, even though not legally binding.

**FRENCH DECREE GOVERNING THE RECRUITING AND DISTRIBUTION OF LABOR.**

In order to secure the best results in meeting the scarcity of male labor in France and in making available for public services all possible labor resources, and at the same time to avoid overlapping and to secure the most equitable distribution of such resources among the employment services, the following executive decree was issued under date of October 18, 1917:<sup>1</sup>

ARTICLE 1. Information of all kinds relative to the needs and to the disposition of manual labor is centralized under the minister of labor and social welfare.

He guarantees the distribution of available labor among the public services employing labor, according to the needs of public and private establishments dependent upon them.

The distribution of labor among the ministries interested is decided by the minister of labor after consultation with the ministers employing and the ministers supplying labor. In case of failure to reach agreement, the minister of labor refers the matter to the economic committee, which decides it.

Each minister employing labor guarantees the immediate employment and control of the labor assigned to him in the public or private establishments or businesses dependent upon him.

ART. 2. The resources at the disposition of the minister of labor for the distribution provided in article 1 comprise:

1. Civil manual labor, male and female.
2. Labor becoming available among the men who are mobilized or subject to mobilization at establishments working for the national defense and are under the regulation of article 6 of the law of August 17, 1915.
3. Mobilized labor which, upon request of the minister of war, can be placed at the disposal of the minister of labor.
4. Prisoners of war placed at his disposal by the minister of war.
5. Alien and colonial labor.

The minister of labor guarantees directly the recruitment of alien labor; however, the minister of agriculture directs the recruiting of alien European labor destined for agriculture and is charged with keeping the minister of labor informed as to this available labor according to the conditions provided in article 1.

The minister of colonies guarantees the recruitment, care, and control of colonial and assimilated labor.

The minister of war guarantees the administration and control of the labor of prisoners of war.

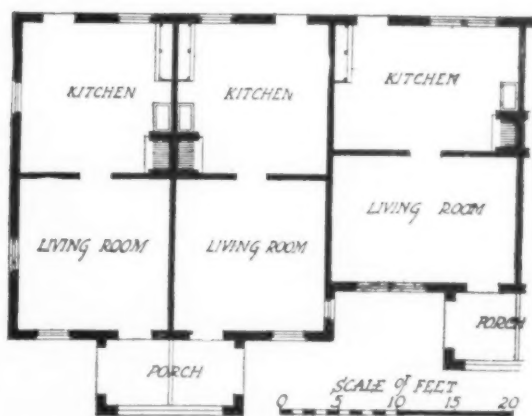
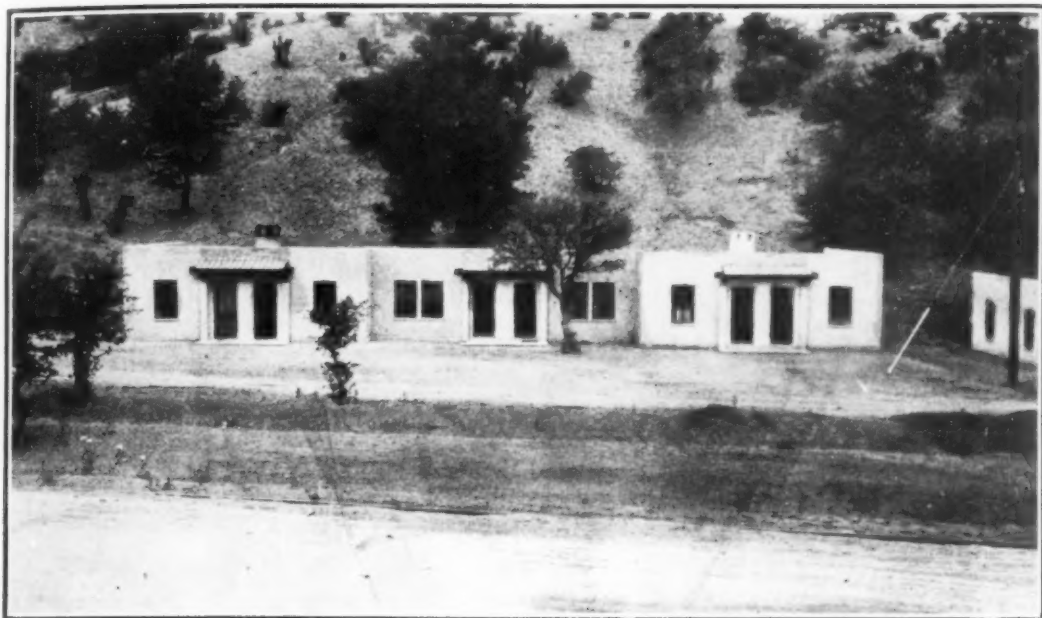
ART. 3. The minister of labor, in agreement with the other ministers employing labor, decides the general rules relating to wages. Each of the minister employers has charge of the application of these general rules to the public or private establishments or businesses dependent upon him.

The minister of agriculture continues in charge of fixing the conditions of labor and the wages of mobilized labor placed for agricultural labor.

ART. 4. Article 9 of the decree of December 31, 1916, and the decree of April 21, 1917, before cited, are abrogated in such of their dispositions as are contrary to the dispositions of the present decree.

ART. 5. The minister of war, of the navy, of munitions, of the colonies, of agriculture, of labor and social welfare, of public works and of finances is charged, each as he is concerned, with the execution of the present decree.

<sup>1</sup> Bulletin des Usines de Guerre, Paris, Oct. 22, 1917.



**FIG. 3.—GROUP OF 6 DWELLINGS FOR MEXICAN LABORERS AND FLOOR PLANS OF HALF THE GROUP.**

Sixteen groups constructed. Stucco on hollow tile. Each dwelling cost, in 1916, \$525; rent, \$6 per month. Conveniences: Sink, drain connections. Lot 80 feet deep.



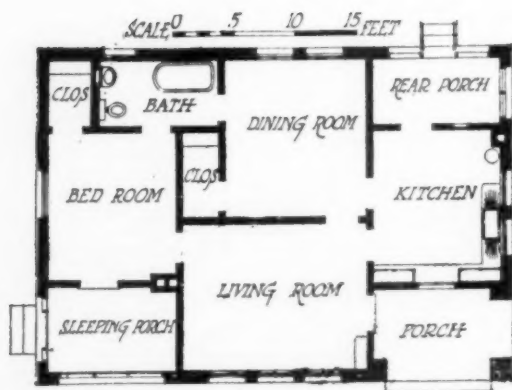
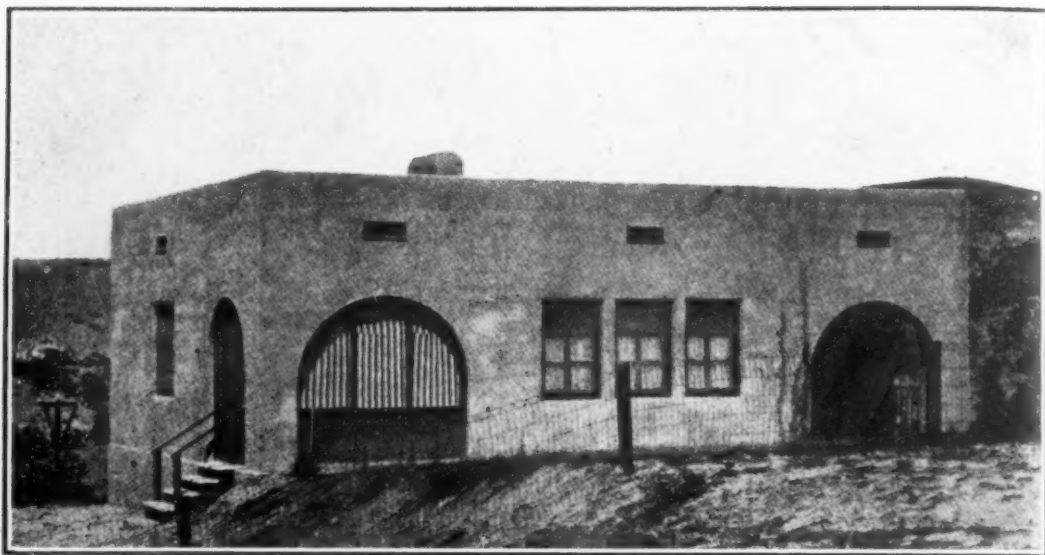


FIG. 4.—FOUR-ROOM DETACHED HOUSE FOR AMERICAN FAMILY.

Cost, in 1916, \$2,547; rent, \$27 per month. The fact that the bathroom does not communicate with a hall is an undesirable feature.

CIVILIAN AUXILIARY SERVICE ESTABLISHED IN ITALY BY VICE-REGAL DECREE.<sup>1</sup>

Great scarcity of labor in agriculture and essential industries and of clerical help in Government offices, banks, etc., has caused the issuance of a vice-regal decree in Italy requesting civilians to register for voluntary labor. This decree (No. 146), issued February 12, 1918, and published in the *Gazzetta Ufficiale* on February 21, 1918, provides that all Italian citizens of both sexes born between January 1, 1857, and December 31, 1903, shall declare whether and in what industry or public service existing in the commune in which their place of residence is situated they are willing to work gratuitously or for proper compensation. Those persons stating their willingness to work in a locality other than their own commune are to receive their traveling expenses.

The decree states that in case a sufficient number of voluntary workers should fail to register it will be made compulsory for all adult males to work in some essential occupation within their commune and that suitable regulations will then be issued for the conscription of labor.

The following are exempted from voluntary registration: (1) Military persons in active service or on furlough, or assigned to establishments or undertakings working for the national defense; (2) persons working in military, auxiliary, and requisitioned establishments; (3) persons employed in agriculture or the transport of agricultural products; (4) employees and officials of public Government offices; (5) those disabled for any kind of work; and (6) physicians, veterinaries, and nurses.

As essential occupations for which volunteers are required the decree enumerates the following:

*Agriculture.*—All occupations in agriculture proper and the handling and transport of agricultural products.

*Mining.*—Mining of coal, metals, and sulphur.

*Forest industries and woodworking.*—Cutting down of trees, making of charcoal, and mechanical woodworking as required for war needs (construction of barracks, making of boxes for projectiles, fuses, fire-arms).

*Food industries.*—Hulling of rice, grain and flour mills, bakeries, manufacture of food conserves, slaughtering, fishing.

*Animal products.*—Tanneries, shoe factories, saddleries.

*Metal industries.*—Iron and steel works, smelters, foundries, machinery works, wire mills, munition factories, ordnance factories, shipyards, automobile factories, airplane factories.

*Industries for the working up of mineral products.*—Lime kilns, cement kilns, brick kilns, factories of refractory material, glass works, potteries.

<sup>1</sup> Bollettino del Comitato Centrale di Mobilitazione Industriale No. 10. Rome, April, 1918. pp. 113 ff.

*Textile industries.*—Cotton, linen, jute, and woolen mills, absorbent cotton and gauze factories, factories of military apparel.

*Chemical industries.*—Manufacture of salts and acids, sulphur refineries, glue and tan factories, phosphorus factories, match factories, factories of explosives, oil distilleries and refineries, tar distilleries, alcohol distilleries and refineries, sugar factories and refineries, fat and soap factories, candle factories, electric carbon factories, hydrogen and oxygen factories, factories of calcium carbide and calcium cyanamid, tobacco factories, rubber and gutta-percha factories, briquet factories.

*Public utility industries and services.*—Gas and electric power plants, ice factories and cold-storage plants, paper factories, printing establishments, waterworks, transportation, and communication services.

*Building trades and construction work.*—All public works operated by the State, Provinces, communes, or other public authorities.

Voluntary offers of enlistment in the auxiliary service may be made by letter, orally, or by filling in a schedule. This must contain the following data: Name, sex, age, nationality, place of residence, and present occupation of the person making the offer; whether he is at present employed or unemployed, the industry or public office in which he is willing to work, and the kind of work desired; whether the offer holds good for the entire working day or only for certain hours (in the latter case the hours have to be specified); whether he offers his services gratuitously or for a suitable compensation; whether he is willing to work outside of the commune in which he resides and the names of the communes in which he is disposed to work; and finally the date on which the offer is made and the correct address of the person offering to work.

The decree provides that the mayor of each commune shall by a proclamation request the civilian population to register for voluntary work within a time limit fixed uniformly for the entire kingdom by the Ministry of Industry, Commerce, and Labor. After the expiration of this time limit each commune is to make a compilation of all offers of service by sex, industries, and public offices, and according as to whether the offer of service holds good for the entire working day or for part of it, or for work within the place of residence or outside of it.

The administrative machinery of the voluntary auxiliary service is organized by the decree as follows:

Within the district of each commune the operation of the voluntary auxiliary service is administered by the mayor of the commune or by a commissioner or committee appointed by him. A provincial commission for the auxiliary service is to be organized in each Province,



and is to be composed of the prefect or his representative as chairman, two employers and two workmen of industries specified as essential in the decree, one administrative Government or communal official, one army officer, one representative each of the district mobilization committee, the local exemption board, the provincial agricultural committee, one member of a local relief committee, and the provincial secretary of the federated relief or propaganda institutions. The provincial commission is to be appointed by the prefect. Finally, a central commission is to be created in the Ministry of Industry, Commerce, and Labor, to be composed of 16 members, among whom shall be two employers and two workmen of industries designated in the decree as essential, one administrative Government or communal official, the director general of labor or his representative, the inspector general of industry or his representative, one industrial or factory inspector, one representative each of the central commission on industrial mobilization, the central exemption board, the central committee on agricultural mobilization, and the central committee of the federated relief and propaganda institutions. The members of this central commission and its chairman are to be appointed by royal decree.

According to the decree the mayor of each commune or the commissioner or the commission appointed by him for the administration of the voluntary auxiliary service shall transmit to the provincial commission a list of the persons having volunteered to render services in a commune other than their home commune, but located within the Province. This list must show the address of these persons and the other data given in their individual schedules. A similar list shall be sent to the central commission of all persons having offered to render services in a locality outside of the Province of their home commune, and if the locality has been specified in the schedule the commune in which this locality is situated must also be informed.

Requests of employers in industries designated in the decree as essential for assignment of workmen, as well as requests of public offices for assignment of employees, must be addressed to the mayor or the local commissioner or commission and must contain information with respect to the working conditions in the industry or office for which workmen or employees are being requested. On the receipt of such requests the mayor or the local commissioner or commission is to assign suitable persons who have offered their services to the parties making the requests. The compensation in money or in kind of volunteer workers and their other working conditions shall be agreed upon by the interested parties by individual contract but may not be lower or less favorable than the compensation or working conditions stipulated in collective agreements in force in the locality in question.

If the number of persons volunteering for work in a commune is not sufficient to supply all the requests for help by industries and public offices then those requests which can not be filled are to be transmitted to the provincial commission. Similarly all requests for help that can not be filled by the provincial commission shall be transmitted by the latter to the central commission.

The decree further provides that volunteer workers employed in pursuance of it shall enjoy the benefits of protective labor laws and social insurance laws now in force to the same extent as other workmen and salaried employees. They may request a certificate for voluntary services rendered and wear special insignia, the character of which will be determined by an order of the Ministry of Industry, Commerce, and Labor.

The sum of 1,000,000 lire (\$193,000) has been appropriated for the administration of the voluntary auxiliary service. The decree came into force with the date of its promulgation (Feb. 21, 1918) in the *Gazetta Ufficiale*.

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#### LAW REGULATING NIGHT WORK IN URUGUAY.<sup>1</sup>

Under the provisions of the law enacted on March 15, 1918, by the Senate and House of Representatives of Uruguay, working in bakeries and the manufacturing of vermicelli, confectionery, and similar products are prohibited between the hours of 9 p. m and 5 a. m. The law became effective on April 16, 1918. Violations of this law are punishable by a fine of 100 pesos (\$103.40) for a first offense and double that amount for any subsequent offense.

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#### WOMAN AND CHILD LABOR LAWS OF VERA CRUZ, MEXICO.<sup>2</sup>

In a discussion of labor conditions in Mexico it is stated that, for the purpose of relieving unjust conditions often imposed on laborers by industrial establishments and of establishing means to expedite the settlement of labor disputes, the various State administrations are making an extended study of foreign labor codes and are adapting and adopting such provisions as are deemed applicable to the needs and conditions of the various Mexican States.

The State of Vera Cruz, which is one of the most active in labor legislation, has just published a code of labor laws, from which the following summary is translated (Ch. VIII, arts. 85-93):

The employment of children of either sex under 12 years of age is prohibited. The employment of women or young persons under 16 years of age later than 10 o'clock at

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<sup>1</sup> Data taken from *Revista Comercial* for May 1918, Montevideo.

<sup>2</sup> Data taken from *Boletín del Trabajo*. Secretaría de Industria, Comercio y Trabajo, Mexico, vol. 1, No. 1, p. 19.

night, in excess of the legal working day, or in dangerous or unhealthy occupations is prohibited.

The following occupations are declared to be dangerous: Oiling, cleaning, adjusting, or repairing machinery or apparatus while in motion; operating automatic circular or band saws, chisels, planers, hammers, or any mechanical apparatus requiring especial precautions; and such other employment as may be specifically designated by the shop rules as dangerous.

The following operations are declared to be unhealthy: Manipulation of toxic substances; operations which produce or emit deleterious or dangerous gases or vapors or disseminate dangerous dust; those requiring prudence or precautions, as in the manufacture of explosives, fulminating or inflammable substances; drainage of tanks, or in operations where continuous humidity is produced, as working in refrigerating tanks in the manufacture of beer; and other industrial operations which may be specifically mentioned in shop rules of factories, workshops, or establishments.

Shop rules must specifically designate such operations as are to be considered dangerous or unhealthy.

No pregnant woman shall be employed in any operation requiring considerable physical force.

Pregnant women are allowed a rest period of eight weeks with half pay, beginning not more than two weeks before and ending not less than six weeks after parturition. Upon resuming work a certificate must be furnished stating that at least six weeks have elapsed since parturition.

During the nursing period, or for six months after parturition, mothers shall be granted two extra daily rest periods of half hour each.

Wages of women and children shall not, solely because of age or sex, be fixed at less rates than those paid other employees performing equal work.



## HOUSING AND WELFARE WORK.

### A MODERN COPPER MINING TOWN.

BY LEIFUR MAGNUSSON.<sup>1</sup>

The Burro Mountain Branch of the Phelps-Dodge Corporation, a branch of the Phelps-Dodge copper interests, began in 1914 the construction of the mining town of Tyrone, N. Mex. The construction of houses, company office, and railroad terminal, and the establishment of recreational and community features have progressed almost simultaneously, and at the present time are in a fair stage of completion.

All the land in the vicinity is owned by the mining company, whose mining interests have caused the growth of settlement at this point. The growth of the town has been like that of any other mining camp. Miners have brought their families there and have built temporary shacks or put up tents in which to live. The usual proportion of traders and storekeepers has also gathered there, as have also Mexican laborers, with or without families. This population has rented land from the company for its stores and houses. A branch line railroad extends to Tyrone, which is situated 48 miles (by rail) northwest of Deming, N. Mex., on the El Paso and Southwestern system. The town is 136 miles northwest of El Paso, Tex. It is located amid the mountains about a mile and a quarter from the mines. As the region is semi-arid, there are only a few trees. These, however, have been carefully preserved, even when located in the middle of a proposed street.

Planning of streets and lots has been difficult on account of the rugged character of the country. The town conforms in a general way to the Spanish type of town, with the plaza in the center. (Fig.1.) About the plaza are grouped the railroad station, the freight depot, the large company department store and its warehouse, the bank and shop building, and the company office. All of these buildings are now completed, as is also the schoolhouse, which is located on the main north and south street. A view of the central plaza as it is at present is shown in figure 2.

While no legal restrictions as to cost and types of buildings exist, there is a natural districting of the town into business and residence sections. The business section, consisting of the company office, stores, railroad station and other buildings, is grouped around the

<sup>1</sup> The information for this description of Tyrone has been furnished by the company: the community was visited in March, 1917.

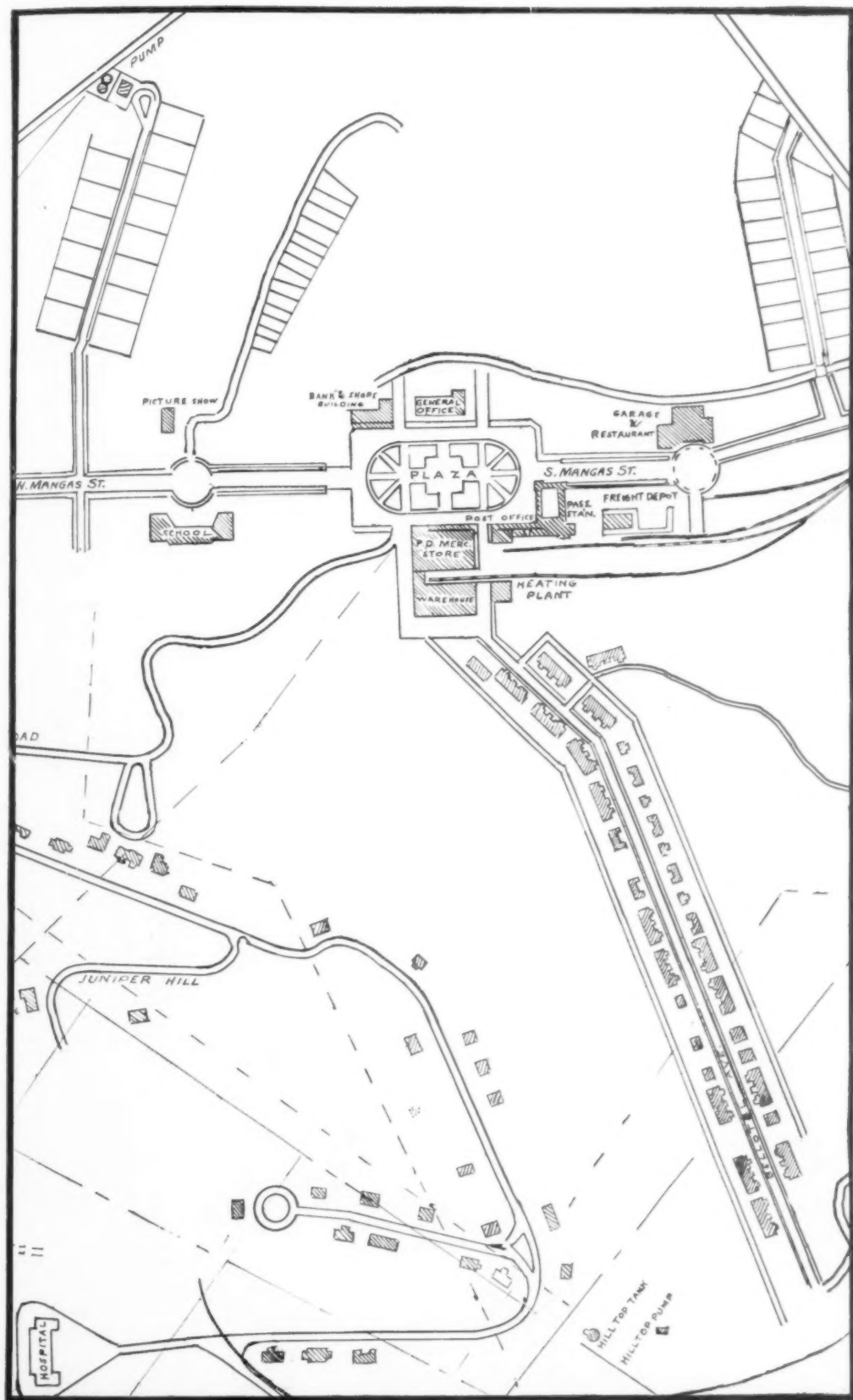


FIG. I.—GENERAL LAYOUT OF CENTRAL PART OF TYRONE, N. MEX.

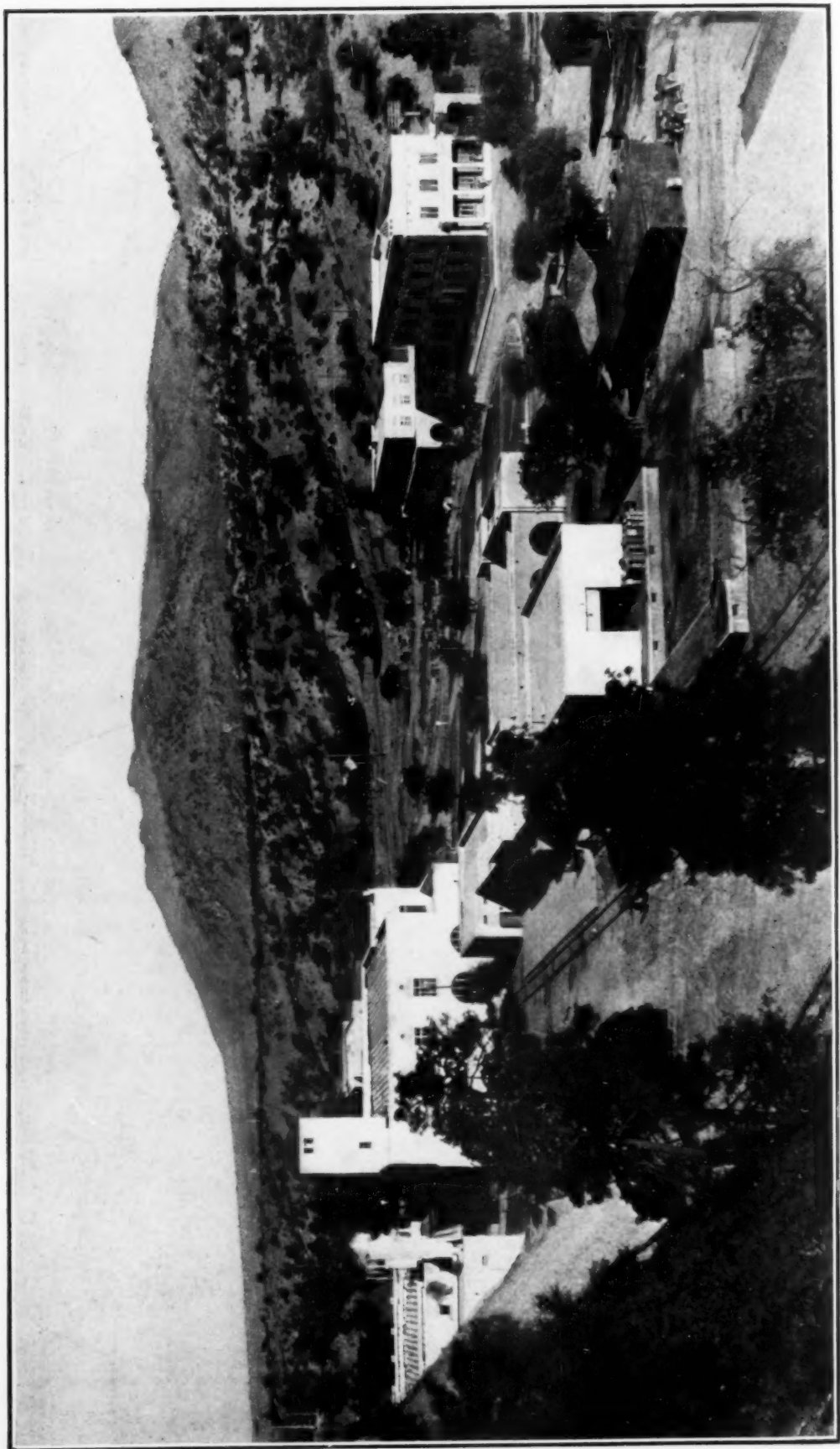


FIG. 2.—THE PLAZA AT TYRONE, N. MEX.

Office, and shop and bank building at right; department store and warehouse at left; railroad station and freight depot in center.



plaza in a hollow square cut by a straight east and west running thoroughfare. All sidewalks fronting on the plaza will be shaded by porticoes extending from the abutting buildings, except that in front of the office of the company, which has no portico. The residence sections are located mainly on the outlying hillsides and in the canyons radiating from the center of the town. The residence districts of the American and the Mexican employees are separated, being located in different canyons.

The business street is 60 feet wide; where it divides and skirts the central plaza, each half is 40 feet wide. The short residential street, or rather the lane, along which the Mexican houses are placed, is 30 feet wide. The road which winds up the hilltop to the American houses is about 20 feet wide.

All buildings except the railroad station and depot have been erected by the company. The township has equipped the school-house. Among other features provided by the mining company are the central heating and electric power plants for the locality.

#### TYPES OF HOUSES.

In planning the buildings of the community the Spanish mission type of architecture, characterized by a plain exterior and a flat roof, has been used. The buildings are of hollow tile 8 inches thick. The exterior is 2-coat stucco work, the final coat being so-called oriental stucco. This stucco has been treated with different shades of integral coloring; there are, therefore, no applied colors used. The houses are of various colors—salmon, pale green, brown, and cream. The Mexican houses are all of the original concrete color. The houses are plastered inside directly on the prepared tile.

It has been difficult to make the flat roofs waterproof. In the more recent construction, therefore, sloping roofs have been preferred.

With the exception of some good examples of hillside houses, the houses have only one floor and are detached or semidetached. Those built for the Mexicans, however, are built in four and six family groups. The Mexican houses lack the 3-piece bathroom and the kitchen plumbing provided in the American houses, and have cement instead of wood floors. Also, they have combination living and dining rooms. Other dwellings of the community have considerable variety in plans and exterior design.

All houses, except that of the general superintendent, are stove heated.

#### HOUSES FOR MEXICANS.

With the exception of four single, three-room dwellings, the houses for the Mexicans are group houses. They are generally constructed of hollow tile with gray stucco exterior, as already described; a few

are stucco on wood frame. All are provided with a sink in the kitchen with drainage connection. The can type of dry privy is used. These are being replaced by Vogel frost-proof toilets.

The Mexican houses were constructed in 1916. According to type, cost, and rental, they are distributed as follows:

COST AND RENTAL OF MEXICAN LABORERS' HOUSES BY TYPE OF HOUSE.

Type of dwelling.	Number of dwellings.	Cost per dwelling.	Number of rooms.	Rent per month.	Size of lot.
					<i>Feet.</i>
Row (six dwellings to a group).....	96	\$525	2	\$6	16 by 80
Double.....	12	695	2	8	20 by 80
Do.....	12	830	3	9	38 by 50
Single.....	4	1,120	3	12	50 by 80

A picture and plans of a row of six dwellings are shown in figure 3 as being the prevailing type of house for the Mexican laborer. While families are small two rooms may suffice, but it is doubtful if the 2-room dwelling will eventually prove to be large enough.

## HOUSES FOR AMERICAN EMPLOYEES.

The houses for the Americans are of a type distinctly better as respects plan, design, and conveniences furnished than the houses above described. They have variety in plans and design. Only 67 dwellings have as yet been provided, and these are occupied by technical and office men and foremen. Modern improvements, consisting of a 3-piece bathroom, sink with running water in the kitchen, and electric lighting, are provided. The houses are prevailing of four rooms. The average rent is about \$6 per room per month. The details as to number of rooms, rents, and construction costs, according to the type of dwelling, are contained in the tabulation following:

COST AND RENTAL OF HOUSES FOR AMERICAN EMPLOYEES, BY TYPE OF HOUSE.

Type of dwelling.	Number erected.	Number of rooms per dwelling.	Rent per month.	Cost per dwelling:						Contents (cubic feet).	Cost per cubic foot.	
				Total.	Contractor's estimate.	Wiring and fixtures.	Fence.	Hardware.	Extras.			
<i>Houses constructed, 1914-15.</i>												
Single, one story:												
Type No. 1.....	11	5	\$20.00	\$2,500	.....	.....	.....	.....	.....	.....	\$ 500	
Type No. 2.....	1	4	20.00	2,151	.....	.....	.....	.....	.....	.....	538	
Type No. 3.....	1	3	18.00	2,026	.....	.....	.....	.....	.....	.....	675	
Type No. 4.....	1	4	20.00	2,092	.....	.....	.....	.....	.....	.....	523	
Average .....	.....	4	19.50	2,192	.....	.....	.....	.....	.....	.....	548	

<sup>1</sup> Wood frame house made with stucco exterior. All other houses are of terra cotta or hollow tile with cement stucco exterior.

<sup>2</sup> Cost per room.

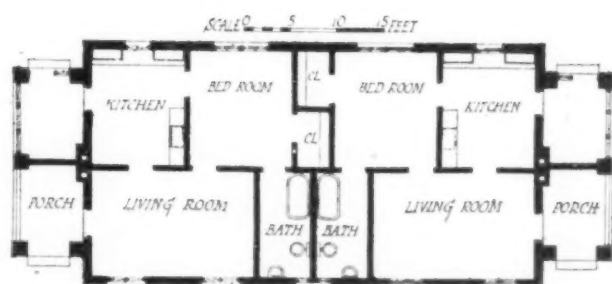
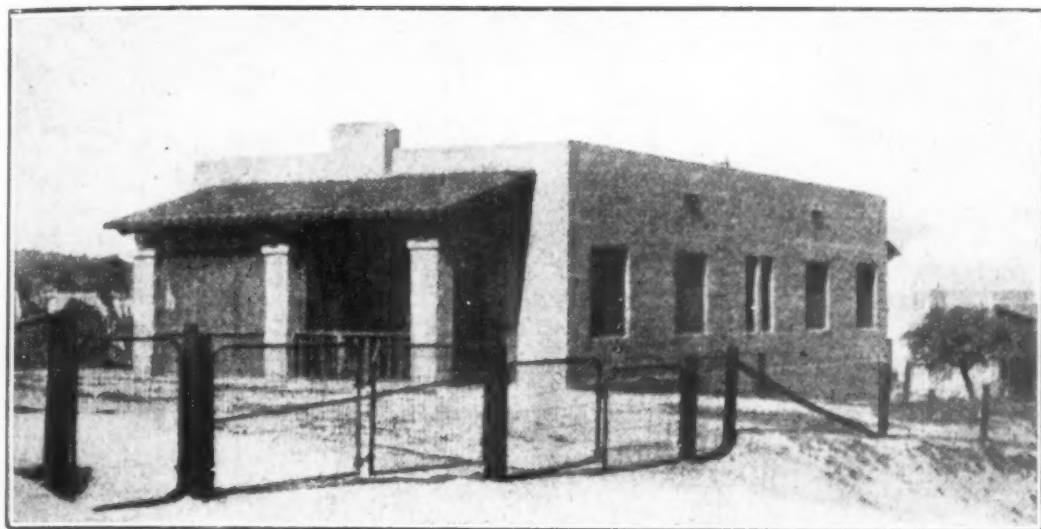
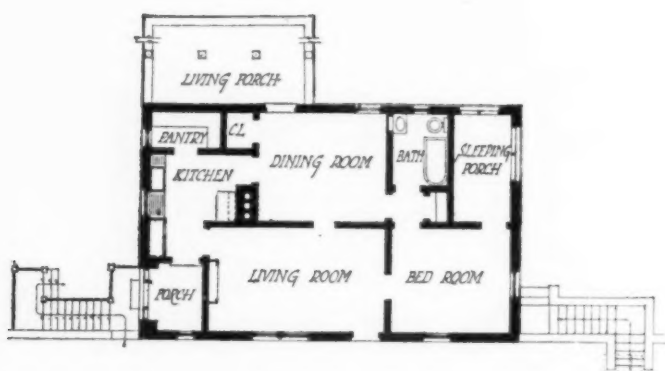
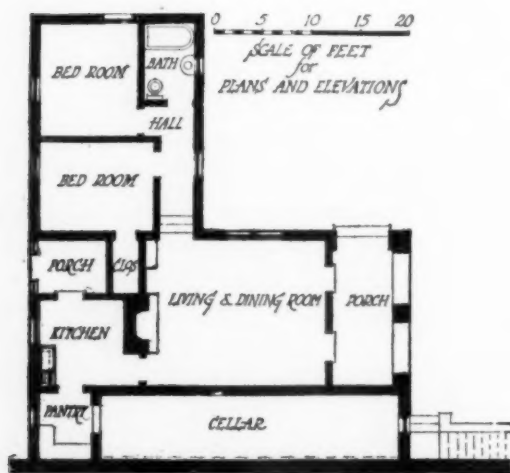


FIG. 5.—THREE-ROOM SEMIDETACHED HOUSE FOR AMERICAN FAMILY.  
Cost, in 1916, \$1,827; rent, \$18 per month. All modern improvements.





UPPER FLOOR.



LOWER FLOOR.

FIG. 6.—SPECIAL HILLSIDE HOUSE.

Family on each ground level; 4 rooms to each dwelling; modern improvements. Cost per dwelling, in 1917, \$2,291.

COST AND RENTAL OF HOUSES FOR AMERICAN EMPLOYEES, BY TYPE OF HOUSE—  
Concluded.

Type of dwelling.	Number erect- ed.	Number of rooms per dwelling.	Rent per month.	Cost per dwelling.						Con- tents (cubic feet).	Cost per cubic foot
				Total.	Contract- or's estimate.	Wiring and fix- tures.	Fence.	Hard- ware.	Ex- tras.		
<i>Houses constructed, 1916.</i>											
Single, one story:											<i>Cents.</i>
Type No. 1.....	2	5	\$30.00	\$2,803	\$2,642	\$68	\$50	\$18	\$25	18,706	14.9
Type No. 2.....	1	4	27.00	2,533	2,379	64	50	15	25	15,501	16.3
Type No. 3.....	2	4	27.00	2,547	2,393	64	50	15	25	15,501	16.4
Type No. 4.....	2	3	27.00	2,148	2,001	58	50	14	25	13,925	15.4
Type No. 5.....	1	4	20.00	2,368	2,201	77	50	15	25	15,439	15.3
Type No. 6.....	2	4	25.00	2,435	2,268	77	50	15	25	15,887	15.3
Double, one story:											
Type No. 1.....	4	2	14.00	1,339	1,234	39	40	13	13	8,740	15.3
Type No. 2.....	4	3	18.00	1,827	1,717	44	40	13	13	11,949	15.2
Type No. 3.....	2	3	15.00	1,590	1,447	40	40	13	50	11,212	14.1
Average.....	.....	3.3	21.15	2,031	1,894	54	45	14	23	13,208	15.3
<i>Houses constructed, 1917.</i>											
Single, one story:											
Type No. 1.....	1	4	25.00	2,716	2,557	50	65	18	26	16,121	16.9
Type No. 2.....	1	4	25.00	3,277	3,112	50	65	18	32	17,456	18.8
Type No. 3.....	1	4	27.00	2,765	2,605	50	65	18	27	16,573	16.6
Type No. 4.....	1	5	30.00	3,230	3,050	60	65	22	33	19,155	16.8
Type No. 5.....	1	5	30.00	3,230	3,050	60	65	22	33	19,155	16.8
Type No. 6.....	1	4	28.00	2,808	2,648	50	65	18	27	16,530	16.9
Double, one story.....	2	4	24.00	3,225	3,060	50	65	18	32	17,250	18.6
Two-family, two story:											
Type No. 1.....	2	4	<sup>1</sup> 23.00	2,931	2,775	50	60	18	28	16,603	17.6
Type No. 2.....	2	4	23.00	2,931	2,775	50	60	18	28	16,603	17.6
Three-family, two story..	3	4	<sup>2</sup> 20.00	3,140	2,991	50	53	18	28	18,108	17.3
Average.....	.....	4.1	24.00	3,041	2,881	51	61	19	29	17,348	17.5

<sup>1</sup> For upper story; for lower story, \$20.<sup>2</sup> For upper story; for lower story, \$25.

The following tabulation is a statement of the company's investment in houses and improvements at Tyrone, as of January 1, 1918:

AMOUNT INVESTED IN HOUSES AND IMPROVEMENTS AT TYRONE, N. MEX., AS OF  
JAN. 1, 1918.

Items.	Amount in- vested Jan. 1, 1918.	Esti- mated invest- ment when fin- ished.	Net revenue re- ceived in 1917.	Items.	Amount in- vested Jan. 1, 1918.	Esti- mated invest- ment when fin- ished.	Net revenue re- ceived in 1917.
Dwellings, etc.:				Sundry improvements:			
Dwellings.....	\$215,232	\$250,350	\$17,035	Water system.....	\$50,778	\$51,000	\$10,213
Garages (6).....	1,085	1,200	28	Light and power system.....	7,205	8,000	2,811
House engineering.....	4,644	5,000		Roads and streets.....	37,360	38,000	( <sup>1</sup> )
Total.....	220,961	256,550	17,063	Sewer system.....	13,698	16,000	1,943
General buildings.				Justice court.....	3,167	3,200	( <sup>1</sup> )
Store and warehouse...	172,837	173,500	20,622	Engineering office expenses.....	18,396	20,000	( <sup>1</sup> )
Schoolhouse.....	76,532	83,000	1,176	Plaza improvements.....	13,019	14,000	( <sup>1</sup> )
Post office.....	14,274	15,000	( <sup>2</sup> )	Sundry expenses.....	1,784	2,000	( <sup>1</sup> )
Bank, shop, and store..	39,533	53,200	( <sup>2</sup> )	Total.....	145,407	152,200	14,967
Total.....	303,176	324,700	21,798	Grand total.....	669,544	733,450	53,823

<sup>1</sup> Nonrevenue-bearing investment.<sup>2</sup> Not reported.

What is apparently a successful hillside house has been designed in the form of a "two-flatter"—accommodating one family upstairs and one downstairs. The principal entrance for the family at the lower level is at the side. Plans and a picture are shown in figure 6.

The total cost of the houses in the town, exclusive of land, which was bought primarily as mining land, is approximately \$220,000.

#### ADMINISTRATION.

The company has created a separate department (the town-site department) to build the town. There is thus created a building and operating force which is to give specialized attention to the housing and community construction of the company. When the construction work is completed, the management will rest with the local manager and his office. Whether a greater separation of the housing policies from those which control the mining or principal business of the company, such as would be afforded by the creation of a subsidiary housing company, is desirable, may be shown by the future success or failure of the undertaking. Such a separation, however, might have little effect, because the town is dependent upon one industry, controlled by one financial interest. Under such circumstances a subsidiary company would be practically identical with the principal company.

Although early in 1917 only 230, or 24.9 per cent, of the 922 employees were living in company houses, the remainder were tenants on company land, no land being sold. Of a total of 649 dwellings on rented lots owned by the company, 315 houses are on unsurveyed lots—that is, lots which had no water connections except in a few cases where tenants themselves made the connection at their own expense; 111 houses occupy surveyed lots leased by American employees or other Americans; and 223 houses are on surveyed lots held by Mexicans.

A lot rents for 50 cents per month if a tent is placed on it; \$1 a month if a frame house is built on it. This rate does not include water, for which a charge of 75 cents a month is made for a single man and \$1.50 for a family, the water being unmetered. If metered, there is a minimum charge of \$1.50 per 3,000 gallons, with a minimum of 50 cents for each 1,000 gallons additional. Both the house and the land lease require from either party 30 days' notice to vacate.

The town appeared to be exceptionally well maintained. Fences were very generally provided in order to secure the good appearance of the premises.

Around the American houses the fences are of steel piping and wire net. Low concrete walls are erected in front of the Mexican houses. Sanitary collection is made regularly every week and is much facilitated by the use of the dry-can privy. This work is also



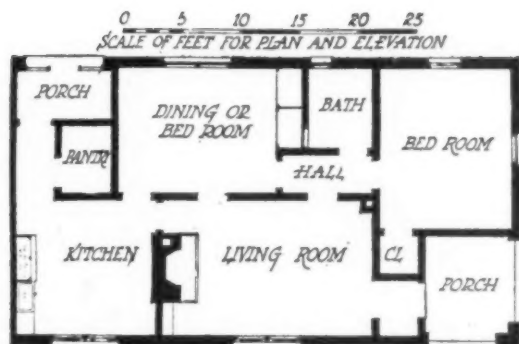


FIG. 7.—FLOOR PLAN OF ONE-HALF OF 4-ROOM DOUBLE DWELLING FOR AMERICAN LABOR.

Cost, in 1917, \$3,255 per dwelling.



FIG. 8.—FLOOR PLAN OF 4-ROOM ONE-STORY DWELLING FOR AMERICAN LABOR.

Cost, in 1916, \$2,435; rent, \$25 per month.

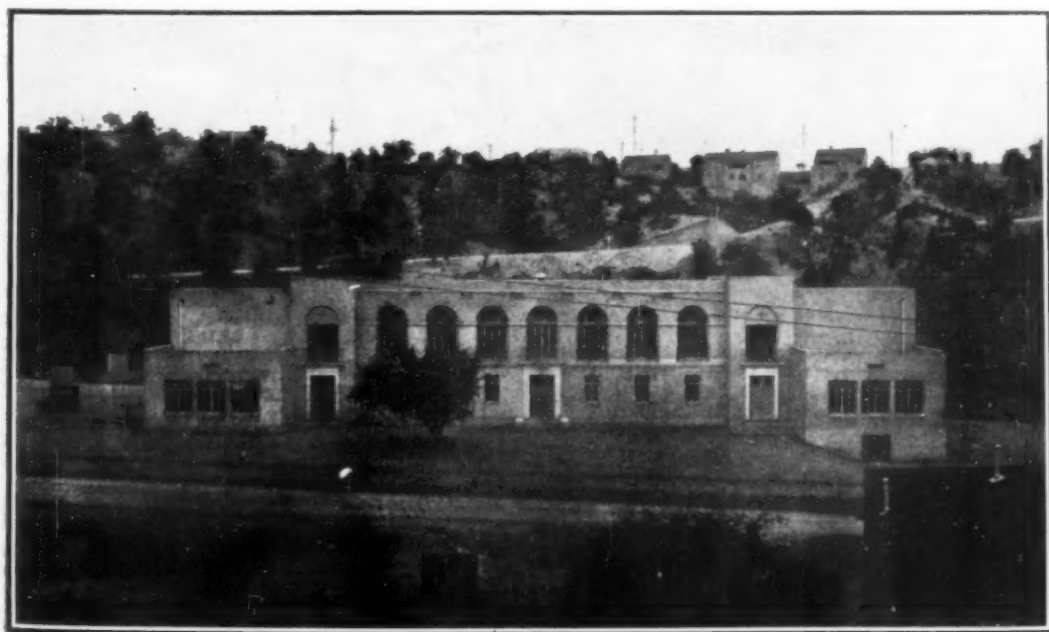


FIG. 9.—SCHOOLHOUSE AT TYRONE, N. MEX.

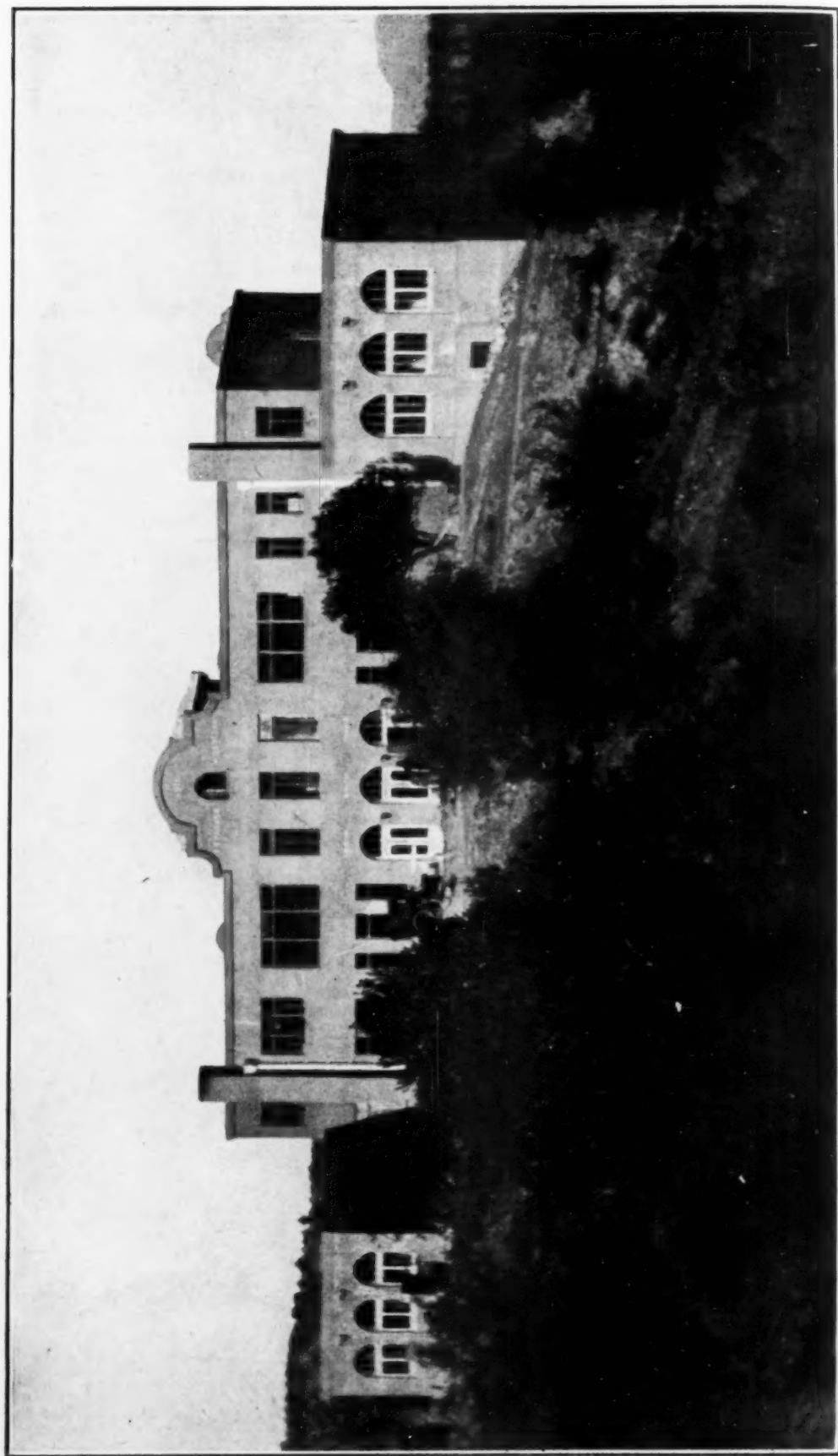


FIG. 10.—THE COMPANY HOSPITAL AT TYRONE, N. MEX.

taken care of by the company for tenants who merely rent land from the company.

*Company hospital.*—On an open hilltop overlooking the town the company has erected a modern hospital (fig. 10). It is a two-story structure of hollow tile with gray stucco exterior, built in Spanish mission style. It cost about \$75,000, and is operated by a staff of two doctors and five nurses.

The hospital accommodates 30 patients at present and will accommodate 50 when the private rooms on the second floor are completed. At present only the two wards—one for men, the other for women—are completed. There is an X-ray room and operating room and a maternity ward and nursery.

Company employees receive medical care, for which single men pay \$1 a month and married men \$2. This fee covers house and office calls, drugs, and bandages for the employee and members of his family. These rates do not cover obstetrical care. Regular medical rates are charged for all other care and services.

#### CONCLUSION.

As organized, the housing and community work will be somewhat paternalistic—with the relation of employer and landlord closely combined in the one controlling interest.

The truck system prevails more or less indirectly through the company store, where purchases, almost without exception, will of necessity be made by the employees' families; and also through the system of deducting rents from the pay of employees in the company houses.

The provision of all public utilities and the maintenance of fire and police protection are functions of the controlling company. The employer assumes a large share of responsibility for the civic life of the community. The town is wholly dependent upon the one industry of copper mining. It has as yet, by reason of its newness and its shifting labor supply, no organized community life of its own; nor is it as yet a political unit, forming, as it does, merely a part of a larger county government.

Attention is now being given to the provision of recreational features in the camp and progress has been made in this direction. There is a club for the office and staff men of the community with near-by tennis courts. There is also a tennis court for general use in the residence part of town. A large clubhouse, providing a pool and billiard hall, motion pictures, a library, lounging room, and baths, has been designed and will be built as soon as conditions for construction work of this nature are more favorable.

It is proposed to provide buildings for the Catholic and Union Churches, both of which are now organized and meeting regularly. The Union Church is making use of one of the rooms in the school



building, while the Catholic Church has been provided with temporary quarters of its own.

A baseball club and a band and orchestra have been formed among the employees. The orchestra provides music for weekly Sunday concerts and for dancing, and dances are held either in the motion-picture theater or on the cement quadrangle provided for the purpose in the center of the plaza.

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#### RESTAURANT FACILITIES FOR SHIPYARD WORKERS.

A pamphlet on restaurant facilities for shipyard workers,<sup>1</sup> which has been published by the Emergency Fleet Corporation, was prepared, according to the foreword, with the hope that it will be found useful in the promotion of better restaurant facilities in American shipyards and thus will aid, through the increased efficiency of the workers and a better understanding between employers and employees, in attaining the one aim of the shipbuilders—"to speed the building of ships." It is stated that the necessity for adequate restaurant and lunch-room service has been found to exist through extensive and careful surveys of the shipbuilding companies in the United States.

Very detailed information is given as to the construction of buildings, including a new type of building called the concrete stud and cement stucco construction which was designed to meet the scarcity both of labor and of building materials. Photographs and plans for both large and small cafeterias, with directions for adapting the plans to the requirements of individual firms, are also included, as well as several classified lists of equipment and a list of representative dealers handling restaurant and cafeteria supplies.

The chapter on sanitation and hygiene includes recommendations in regard to location, lighting, and ventilation, the proper care of food, general cleanliness, and the examination of restaurant employees for communicable diseases. An inspection card used by one of the large shipbuilding companies is reproduced.

The necessity of serving a variety of food of good quality is stressed and the statement is made that "many companies have become so thoroughly convinced that properly balanced rations are essential to the good health of their employees that special emphasis is placed upon this feature of their restaurant facilities." Typical examples of menus from successful restaurants and cafeterias in industrial plants are given.

In conclusion, several pages are devoted to a discussion of lunch-room accounting, with copies of forms for keeping accounts in order to have a systematic checking of expenditures and receipts.

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<sup>1</sup> Restaurant Facilities for Shipyard Workers, by Frederick S. Crum. Published by the Industrial Service Section, Emergency Fleet Corporation, Washington, D. C., 1918. 63 pp.

## EMPLOYMENT AND UNEMPLOYMENT.

### WORK OF PUBLIC EMPLOYMENT OFFICES IN THE UNITED STATES AND OF PROVINCIAL EMPLOYMENT OFFICES IN CANADA.

Data are presented in the following table showing the operations of the public employment offices for the month of July, 1918, and, in cases where figures are available, for the corresponding month in 1917. Figures are given from 276 public employment offices in 44 States and the District of Columbia—Federal employment offices in 35 States and the District of Columbia, Federal-State employment offices in 2 States, a Federal-county employment office in 1 State, Federal-State-county-municipal employment offices in 3 States, Federal-State-municipal employment offices in 3 States, Federal-municipal employment offices in 6 States, State employment offices in 11 States, a State-municipal employment office in 1 State, and municipal employment offices in 4 States. Figures from 2 Canadian employment offices are also given.

OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918.

#### UNITED STATES.

[Fed.=Federal; Sta.=State; Co.=County; Mun.=Municipal.]

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.
<i>Alabama.</i>												
Anniston (Fed.).....		(1)		174		2 114		(1)		88		68
Birmingham (Fed.).....		283		3,318		2,155		(1)		1,948		1,744
Mobile (Fed.).....	(1)	150	(1)	2,297	2 8	2 875	(1)	(1)	(1)	850	(1)	820
Total.....									(1)	2,886	(1)	2,632
<i>Arizona.</i>												
Prescott (Fed.).....		51		51		2 45		(1)		45		45
Tucson (Fed.).....		61		1,188		2 220		(1)		177		168
Yuma (Fed.-Sta.-Co.- Mun.).....		50		134		2 188		(1)		181		104
Total.....										403		317
<i>Arkansas.</i>												
Fort Smith (Fed.).....		24		3,080		2 329		(1)		238		228
Helena (Fed.).....		60		403		2 139		(1)		56		51
Hot Springs (Fed.).....		17		2,650		2 229		(1)		104		100
Jonesboro (Fed.).....		29		242		2 674		(1)		347		336
Little Rock (Fed.-Sta.).....		332		6,138		24,920		(1)		4,398		4,237
Line Bluff (Fed.).....		48		3,930		2 370		(1)		334		333
Texarkana (Fed.).....		14		641		2 322		(1)		260		222
Total.....										5,737		5,507

<sup>1</sup> Not reported.

<sup>2</sup> Number applying for work.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.
California.												
Alturas (Fed.)		75		125		1 125		(2)		125		125
Alturas (Sta.) <sup>2</sup>		(2)		(2)		(2)		(2)		(2)		122
Berkeley (Fed.)		2		4		1 28		(2)		12		9
Chico (Fed.-Sta.) <sup>2</sup>		(2)		(2)		(2)		(2)		(2)		626
Colusa (Fed.)		42		65		1 103		(2)		51		46
Crescent City (Fed.)		6		239		1 7		(2)		7		7
El Centro (Fed.)		116		200		1 258		(2)		238		163
Eureka (Fed.-Sta.) <sup>2</sup>		118		571		1 251		(2)		242		237
Fresno (Sta.)		460		981		975		(2)		996		960
Grass Valley (Fed.)		6		7		1 17		(2)		9		5
Hanford (Fed.)		32		50		1 185		(2)		81		22
Hayward (Fed.)		10		54		60		(2)		62		29
Hemet (Fed.)		450		1,895		1,888		(2)		182		1,696
Hollister (Fed.)		81		294		1 560		(2)		266		178
King City (Fed.)		25		25		1 42		(2)		20		13
Los Angeles (Fed.-Sta.- Mun.)	(2)	4,914	(2)	9,532	(2)	3,773	(2)	(2)	(2)	8,090	(2)	6,943
Madera (Fed.)		62		85		1 79		(2)		53		53
Merced (Fed.)		36		102		1 132		(2)		96		34
Marysville (Fed.-Sta.) <sup>2</sup>		(2)		(2)		(2)		(2)		(2)		405
Modesto (Fed.-Co.)		239		396		1 476		(2)		396		396
Newcastle (Fed.-Sta.)		66		136		1 145		(2)		145		116
Oakland (Fed.-Sta.)	1,319	2,129	2,476	4,896	1,232	3,043	(2)	(2)	1,554	4,258	1,227	3,690
Oroville (Fed.)		32		65		1 39		(2)		39		36
Placerville (Fed.)		7		15		1 7		(2)		3		3
Pomona (Fed.)		1		2		1 4		(2)		2		0
Porterville (Fed.)		36		98		1 74		(2)		29		20
Red Bluff (Fed.)		27		41		1 24		(2)		13		16
Redding (Fed.)		51		139		86		(2)		87		87
Redding (Fed.-Sta.) <sup>2</sup>		(2)		(2)		(2)		(2)		(2)		68
Sacramento (Fed.)		581		1,964		1,304		(2)		1,443		1,204
Sacramento (Sta.)	555	618	1,532	2,030	1,137	1,376	(2)	(2)	1,168	1,477	1,067	1,228
Salinas (Fed.)				3		1 11		(2)		11		11
San Bernardino (Fed.)		96		350		1 464		(2)		301		207
San Diego (Fed.)	702	920	1,331	1,532	875	1,081	(2)	(2)	1,259	1,560	971	1,218
San Francisco (Fed.)		1,012		5,500		4,330		(2)		3,652		3,282
San Francisco (Sta.)	3,125	3,744	5,857	8,083	4,732	5,128	(2)	(2)	5,428	7,541	4,064	6,198
San Jose (Fed.-Sta.)		868		1,387		923		(2)		1,236		956
San Luis Obispo (Fed.)		41		83		1 86		(2)		86		43
Santa Ana (Fed.)		4		4		1 28		(2)		11		2
Santa Barbara (Fed.)		86		111		1 152		(2)		81		79
Santa Maria (Fed.)		2		4		5		(2)		6		5
Santa Rosa (Fed.-Sta.)		173		567		1 440		(2)		440		440
Stockton (Fed.)		302		676		1,196		(2)		1,055		977
Ukiah (Fed.)		95		245		1 125		(2)		117		106
Willows (Fed.)		113		159		1 153		(2)		134		131
Willows (Sta.) <sup>2</sup>		(2)		(2)		(2)		(2)		(2)		122
Total									9,409	34,662	7,329	32,284
Colorado.												
Grand Junction (Fed.- Sta.)		(2)		(2)		(2)		(2)		(2)		107
Connecticut.												
Hartford (Sta.)	(2)	1,180	1,105	(2)	11,408	11,174	(2)	(2)	(2)	(2)	889	809
Delaware.												
Wilmington (Fed.)	15	235	248	495	1 147	11,884	(2)	(2)	119	1,819	100	1,691
District of Columbia.												
Washington (Fed.)	177	225	548	2,508	1 427	14,203	(2)	(2)	345	4,126	246	3,924

<sup>1</sup> Number applying for work.<sup>2</sup> Not reported.<sup>3</sup> Seasonal office.



## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.
<i>Florida.</i>												
Jacksonville (Fed.).....		84		666		1 908		(*)		660		651
Pensacola (Fed.).....		18		289		1 85		(*)		56		51
Tampa (Fed.).....		10		(*)		1 507		(*)		437		346
Total.....										1,153		1,048
<i>Georgia.</i>												
Atlanta (Fed.-Sta.).....		256		4,610		11,951		(*)		1,870		1,806
Augusta (Fed.).....		52		1,543		1 442		(*)		391		310
Columbus (Fed.).....		9		79		1 434		(*)		376		315
Macon (Fed.-Mun.).....		22		158		1 130		(*)		78		78
Savannah (Fed.).....	1	35	2,000	1,332	1 180	1 325	(*)	(*)	50	305	38	295
Total.....									50	3,020	38	2,804
<i>Idaho.</i>												
Boise (Mun.).....	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	(*)	182	(*)	179
St. Anthony (Fed.).....		215		709		1 052		(*)		614		614
Total.....									(*)	796	(*)	784
<i>Illinois.</i>												
Alton (Fed.).....		12		560		1 199		(*)		186		209
Aurora (Fed.-Sta.).....		271		1,017		1 949		(*)		846		685
Bloomington (Fed.-Sta.).....		240		366		402		10		367		296
Cairo (Fed.-Sta.).....		38		498		1 411		(*)		399		336
Chicago (Fed.-Sta.).....	4,966	13269	16025	59449	15525	27041	1,304	7,808	15,721	27,893	12,728	22,320
Danville (Fed.-Sta.).....		104		230		1 272		(*)		219		191
Decatur (Fed.-Sta.).....		223		485		1 391		(*)		314		254
Galesburg (Fed.).....		94		574		1 225		(*)		150		95
Joliet (Fed.-Sta.).....		221		549		1 555		(*)		485		454
Quincy (Fed.).....		180		1,410		276		(*)		324		148
Rockford (Fed.-Sta.).....	779	1,272	1,532	1,879	811	1,483	233	439	857	1,691	791	1,494
Springfield (Sta.).....	544	530	681	872	495	298	347	509	670	736	624	655
Total.....									17,248	33,610	14,143	27,137
<i>Indiana.</i>												
Evansville (Fed.).....		21		869		1 558		(*)		434		424
Evansville (Sta.).....	(*)	371	(*)	745	(*)	(*)	(*)	(*)	(*)	689	(*)	565
Fort Wayne (Fed.).....		107		686		1 455		(*)		353		250
Fort Wayne (Sta.).....	355	460	776	837	72	(*)	672	(*)	744	(*)	744	650
Indianapolis (Fed.).....	154	346	1,031	2,446	1 1503	1 2000	(*)	(*)	1,040	1,970	946	1,760
Kokomo (Fed.).....		29		159		1 205		(*)		91		89
South Bend (Sta.).....	135	22	608	233	675	1 208	30	(*)	600	140	549	93
Terre Haute (Fed.).....		43		287		1 233		(*)		143		80
Total.....									2,384	3,820	2,239	3,911
<i>Iowa.</i>												
Cedar Rapids (Fed.-Sta.).....		369		1,296		1 752		(*)		723		605
Council Bluffs (Fed.-Sta.).....		111		405		1 360		(*)		283		191
Creston (Fed.-Sta.).....		45		45		1 73		(*)		66		64
Davenport (Fed.-Sta.).....		320		1,017		557		168		688		558
Des Moines (Fed.-Sta.-Co.-Mun.).....	92	1,001	428	2,449	235	12191	27	(*)	260	960	213	1,363
Mason City (Fed.-Sta.).....		205		649		278		(*)		235		209
Ottumwa (Fed.-Sta.).....		237		403		1 371		(*)		371		362
Sioux City No. 1 (Fed.-Sta.).....		904		3,006		14,579		(*)		2,035		1,979
Sioux City No. 2 (Fed.-Sta.).....		104		462		1 981		(*)		840		825
Waterloo (Fed.-Sta.).....		504		674		1 824		(*)		720		568
Total.....									260	6,971	213	6,724

\* Number applying for work.

\* Not reported.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registrations.		Renewals.					
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.
<i>Kansas.</i>												
Hutchinson (Fed.).....		112		549		1 1469		(2)		501		145
Kansas City (Fed.).....		133		1,375		1 596		(2)		539		510
Topeka (Fed.-Sta.).....	63	234	70	1,176	1 81	1 457	(2)	(2)	58	333	53	268
Total.....									58	1,373	53	923
<i>Kentucky.</i>												
Covington (Fed.).....		86		956		1 351		(2)		315		305
Louisville (Sta.).....	203	131	203	101	(2)	1 134	(2)	(2)	195	101	195	101
Paducah (Fed.).....		57		839		1 733		(2)		23		687
Total.....									195	439	195	1,093
<i>Louisiana.</i>												
Alexandria (Fed.).....		(2)		(2)		1 370		(2)		(2)		309
Jennings (Fed.).....		169		933		1 16		(2)		14		14
Shreveport (Fed.-Mun.).....		58		784		1 141		(2)		100		98
Total.....										114		421
<i>Maryland.</i>												
Baltimore (Fed.).....	64	513	205	11,490	285	110786	(2)	(2)	346	9,149	266	9,106
Hagerstown (Fed.).....		39		380		1 114		(2)		88		88
Total.....									346	9,237	266	9,194
<i>Massachusetts.</i>												
Boston (Sta.).....	2,016	2,063	2,368	2,588	11,689	11,471	(2)	(2)	3,774	3,251	1,496	1,527
Springfield (Fed.-Sta.).....	1,004	1,068	1,492	2,106	1 783	1 804	(2)	(2)	1,768	1,923	1,068	1,284
Worcester (Sta.).....	972	967	1,258	1,357	1 630	1 668	(2)	(2)	1,350	1,517	713	712
Total.....									6,892	6,691	3,277	3,523
<i>Michigan.</i>												
Battle Creek (Sta.).....	99	156	275	463	1 275	343	(2)	200	275	343	275	120
Bay City (Sta.).....	73	50	237	259	1 117	233	(2)	26	101	77	88	77
Detroit (Fed.).....	26	4,283	289	21,191	1 400	110924	(2)	(2)	106	9,048	103	4,281
Detroit (Sta.).....	1,200	1,118	6,469	6,394	16880	6,202	(2)	132	(2)	6,313	6,434	6,313
Flint (Sta.).....	644	171	1,246	304	137	250	(2)	40	(2)	270	834	244
Grand Rapids (Fed.).....		1,464		2,861		11,236		(2)		830		584
Grand Rapids (Sta.).....	747	759	898	1,875	1 858	1,516	(2)	335	(2)	1,804	819	1,780
Jackson (Sta.).....	472	356	793	447	1 694	300	(2)	147	676	385	654	374
Kalamazoo (Sta.).....	210	460	347	540	1 397	530	(2)	63	321	520	301	448
Lansing (Sta.).....	134	69	448	165	1 356	142	(2)	31	341	143	341	134
Muskegon (Sta.).....	49	48	212	728	1 151	130	(2)	22	127	132	127	98
Marquette (Fed.).....		62		783		1 74		(2)		31		30
Port Huron (Fed.).....		147		1,346		1 456		(2)		430		376
Saginaw (Sta.).....	129	181	650	565	1 488	270	(2)	58	488	328	488	328
Traverse City (Fed.).....		(2)		36		1 59		(2)		20		8
Total.....									2,435	20,674	10,464	15,195
<i>Minnesota.</i>												
Minneapolis (Sta.).....	(2)	900	(2)	1,588	(2)	1,376	(2)	(2)	(2)	1,377	(2)	1,031
<i>Mississippi.</i>												
Greenwood (Fed.).....		27		4,032		1 82		(2)		82		80
Gulfport (Fed.).....	1	(2)	6	(2)	1 36	1 35	(2)	(2)	1	35	1	27
Holly Springs (Fed.).....		(2)		1		12		(2)		1		1
Meridian (Fed.).....		49		53		1 878		(2)		859		858
Pasagoula (Fed.).....		15		118		1 21		(2)		21		17
Total.....									1	998	1	983

1 Number applying for work.

2 Not reported.

3 Number of offers of positions.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registrations.		Renewals.					
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.
<i>Missouri.</i>												
Hannibal (Fed.-Sta.).....		16		524		<sup>1</sup> 56		( <sup>2</sup> )		45		21
Joplin (Fed.).....		( <sup>2</sup> )		( <sup>2</sup> )		<sup>1</sup> 241		( <sup>2</sup> )		77		77
Kansas City (Fed.-Sta.).....	1,042	( <sup>2</sup> )	2,792	17716	1,354	<sup>1</sup> 1986	968	( <sup>2</sup> )	2,169	11986	2,008	7,323
St. Joseph (Fed.).....		390		2,717		<sup>1</sup> 1342		( <sup>2</sup> )		1,286		1,171
St. Joseph (Sta.).....	1,293	( <sup>2</sup> )	1,615	1,712	1,005	<sup>1</sup> 1325	610	( <sup>2</sup> )	1,615	1,325	1,101	1,325
St. Louis (Fed.-Sta.).....	342	688	6,406	16009	<sup>1</sup> 2,267	<sup>1</sup> 6080	( <sup>2</sup> )	( <sup>2</sup> )	2,012	5,978	1,997	5,664
Springfield (Fed.).....		108		207		<sup>1</sup> 244		( <sup>2</sup> )		213		196
Total.....									5,796	20,910	5,106	15,777
<i>Montana.</i>												
Helena (Fed.).....	( <sup>2</sup> )	104	( <sup>2</sup> )	216	( <sup>2</sup> )	<sup>1</sup> 109	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	104	( <sup>2</sup> )	104
Missoula (Fed.).....		247		786		518		( <sup>2</sup> )		618		618
Total.....									( <sup>2</sup> )	722	( <sup>2</sup> )	722
<i>Nebraska.</i>												
North Platte (Fed.).....		109		160		<sup>1</sup> 130		( <sup>2</sup> )		119		100
Omaha (Fed.-Sta.-Co.-Mun.).....	878	1,133	1,537	7,019	735	<sup>1</sup> 5198	440	( <sup>2</sup> )	1,192	5,086	952	4,913
Total.....									1,192	5,205	952	5,013
<i>Nevada.</i>												
Elko (Fed.).....		130		286		<sup>1</sup> 282		( <sup>2</sup> )		282		282
Reno (Fed.).....		137		428		<sup>1</sup> 486		( <sup>2</sup> )		370		334
Total.....										652		636
<i>New Mexico.</i>												
Albuquerque (Fed.)....	( <sup>2</sup> )	47	( <sup>2</sup> )	72	( <sup>2</sup> )	<sup>1</sup> 240	( <sup>2</sup> )	( <sup>2</sup> )	( <sup>2</sup> )	68	( <sup>2</sup> )	48
Deming (Fed.).....		31		238		73		( <sup>2</sup> )		442		437
Roswell (Fed.).....		55		285		<sup>1</sup> 236		( <sup>2</sup> )		120		106
Total.....									( <sup>2</sup> )	630	( <sup>2</sup> )	591
<i>New York.</i>												
Albany (Fed.-Sta.).....	807	811	1,145	1,471	572	906	298	273	880	1,089	606	700
Buffalo (Fed.-Sta.).....	2,457	2,361	2,748	12764	2,917	3,005	172	255	4,231	4,123	3,192	3,085
New York City (Fed.-Sta.).....	1,473	4,847	1,871	42395	1,093	28216	687	1,126	1,958	29,096	1,123	20,004
New York City (Mun.).....	2,150	1,887	2,350	2,295	2,598	1,734	1,730	1,507	3,279	2,639	2,042	1,842
Rochester (Fed.-Sta.).....	1,871	1,891	2,882	3,704	1,481	1,996	417	656	2,398	3,028	1,491	1,731
Syracuse (Fed.-Sta.).....	1,357	1,517	1,852	3,061	940	1,742	252	292	1,648	2,388	1,251	1,996
Total.....									14,454	42,368	9,705	29,448
<i>North Carolina.</i>												
Charlotte (Fed.).....		36		1,102		<sup>1</sup> 520		( <sup>2</sup> )		475		189
Elizabeth City (Fed.).....		53		241		<sup>1</sup> 162		( <sup>2</sup> )		149		140
Raleigh (Fed.).....		15		44		<sup>1</sup> 151		( <sup>2</sup> )		53		23
Wilmington (Fed.).....		149		830		<sup>1</sup> 901		( <sup>2</sup> )		688		375
Total.....										1,365		727
<i>North Dakota.</i>												
Grand Forks (Fed.).....		8		360		( <sup>2</sup> )		( <sup>2</sup> )		209		( <sup>2</sup> )

<sup>1</sup> Number applying for work.<sup>2</sup> Not reported.



OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918—Continued.  
UNITED STATES—Continued.

State, city, and kind of office.	Applica- tions from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New regis- trations.		Renewals.					
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.
Ohio.												
Akron (Fed.-Sta.-Mun.)	(1)	(1)	3,240	3,293	1,174	1,305	1,796	1,742	2,370	2,705	2,061	2,264
Athens (Fed.-Sta.-Mun.)	(1)	(1)	144	27	109	10	48	10	90	13	75	12
Canton (Fed.-Sta.-Mun.)	(1)	(1)	531	738	613	623	277	277	595	644	351	396
Chillicothe (Fed.-Sta.-Mun.)	(1)	(1)	7,595	771	3,034	628	57	324	7,370	653	7,124	563
Cincinnati (Fed.-Sta.-Mun.)	(1)	(1)	2,210	4,200	2,892	3,224	3,787	2,894	2,191	3,514	1,504	2,908
Cleveland (Fed.-Sta.-Mun.)	(1)	(1)	8,259	9,997	3,970	5,641	8,018	7,615	7,615	9,507	5,996	7,522
Columbus (Fed.-Sta.-Mun.)	(1)	(1)	3,243	5,438	1,168	2,876	2,595	3,448	2,732	4,902	2,217	4,122
Dayton (Fed.-Sta.-Mun.)	(1)	(1)	1,786	4,418	1,813	2,226	1,738	1,789	1,674	3,320	1,479	3,127
Hamilton (Fed.-Sta.-Mun.)	(1)	(1)	130	208	358	114	31	39	127	146	88	127
Lima (Fed.-Sta.-Mun.)	(1)	(1)	521	1,002	557	460	141	281	463	680	399	591
Mansfield (Fed.-Sta.-Mun.)	(1)	(1)	187	642	201	303	67	192	174	461	119	434
Marietta (Fed.-Sta.-Mun.)	(1)	(1)	207	227	221	162	106	135	193	261	149	193
Marion (Fed.-Sta.-Mun.)	(1)	(1)	388	614	396	508	169	177	331	588	196	509
Portsmouth (Fed.-Sta.-Mun.)	(1)	(1)	280	1,354	929	540	167	563	231	1,060	106	624
Sandusky (Fed.-Sta.-Mun.)	(1)	(1)	284	227	227	95	279	211	211	211	211	211
Springfield (Fed.-Sta.-Mun.)	(1)	(1)	350	370	603	307	160	281	222	398	161	324
Steubenville (Fed.-Sta.-Mun.)	(1)	(1)	711	667	393	376	311	310	581	619	466	476
Tiffin (Fed.-Sta.-Mun.)	(1)	(1)	268	419	206	322	111	152	201	416	155	390
Toledo (Fed.-Sta.-Mun.)	(1)	(1)	3,675	3,210	1,794	1,275	3,154	2,476	3,333	3,020	2,711	2,465
Washington C.H. (Fed.-Sta.-Mun.)	(1)	(1)	194	245	222	214	117	38	175	169	138	88
Youngstown (Fed.-Sta.-Mun.)	(1)	(1)	2,124	2,189	1,197	1,199	1,514	1,282	2,028	1,968	1,852	1,730
Zanesville (Fed.-Sta.-Mun.)	(1)	(1)	153	315	292	246	91	161	141	315	80	282
Total									32,837	35,647	27,427	29,348
Oklahoma.												
Ardmore (Fed.-Sta.)	18	3,764	13	2	451	(1)	303	189	189	189	189	189
Bartlesville (Fed.-Sta.)	11	13	2	35	(1)	8	7	7	7	7	7	7
Chickasha (Fed.-Sta.)	31	82	2	57	(1)	42	40	40	40	40	40	40
Enid (Fed.-Sta.)	146	153	266	366	258	363	(1)	236	247	225	234	234
Lawton (Fed.-Sta.)	40	398	2	398	(1)	141	134	134	134	134	134	134
McAlester (Fed.-Sta.)	135	435	2	426	(1)	324	290	290	290	290	290	290
Muskogee (Fed.-Sta.)	298	159	582	307	325	298	(1)	318	174	256	118	118
Oklahoma City (Fed.-Sta.)	239	369	809	788	688	1041	(1)	685	810	612	676	676
Tulsa (Fed.-Sta.)	905	461	1,917	1,537	1586	1190	(1)	1,373	820	1,227	897	897
Total								2,612	2,869	2,320	2,495	2,495
Oregon.												
Eugene (Fed.)	36	324	2	108	(1)	105	107	107	107	107	107	107
Medford (Fed.)	118	536	2	253	(1)	200	195	195	195	195	195	195
Portland (Fed.-Mun.)	4,975	2496	13583	14942	5061	10635	(1)	9,640	10,273	9,531	9,531	9,531
Salem (Fed.)	56	449	2	368	(1)	358	368	368	368	368	368	368
Total								(1)	10,303	10,273	10,201	10,201
Pennsylvania.												
Altoona (Sta.)	24	394	99	11,763	50	1,197	53	(1)	77	831	58	804
Connellsville (Fed.)						3	(1)					
Erie (Sta.)		295		2,958		418	36			349		312

<sup>1</sup> Not reported.<sup>2</sup> Number applying for work.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918—Continued.

## UNITED STATES—Continued.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	New registrations.		Renewals.		July, 1917.	July, 1918.	July, 1917.	July, 1918.
Pennsylvania—Concl'd.												
Harrisburg (Sta.).....	493	342	546	1,289	405	782	115	94	477	719	453	697
Johnstown (Sta.).....	93	244	199	4,221	108	307	12	1	117	267	98	265
New Castle (Sta.).....		120		520		118		(1)		91		91
New Kensington (Sta.).....		171		471		125		(2)		218		218
Philadelphia (Fed.)....	213	563	2,062	4,774	1,253	3,372	(2)	(2)	1,047	2,862	933	2,850
Philadelphia (Sta.).....	323	1,321	1,099	5,497	1,222	3,984	359	126	1,059	3,507	956	3,492
Pittsburgh (Sta.).....	219	1,921	1,008	3,933	459	3,153	137	276	501	3,205	460	3,120
Seranton (Sta.).....		817		96		75		10		47		45
Williamsport (Sta.).....		133		419		315		5		69		63
York (Sta.).....		20		177		120		13		111		102
Total.....									3,278	12,276	2,958	12,059
Rhode Island.												
Providence (Sta.).....	223	159	346	186	281	183	137	37	(2)	186	346	186
South Carolina.												
Anderson (Fed.).....		3		55		127		(2)		6		
Charleston (Fed.).....	(2)	50	(2)	501	(2)	2,188	(2)	(2)	(2)	2,140	(2)	2,124
Greenville (Fed.).....		41		711		184		(2)		109		70
Spartanburg (Fed.).....		35		125		184		(2)		26		9
Total.....									(2)	2,281	(2)	2,203
South Dakota.												
Aberdeen (Fed.).....		22		56		140		(2)		13		11
Huron (Fed.).....	(2)	458	(2)	1,112	1,284	1,824	(2)	(2)	1,257	824	984	812
Rapid City (Fed.).....		18		33		8		(2)		12		8
Total.....									1,257	849	984	831
Tennessee.												
Bristol (Fed.).....		34		741		1148		(2)		105		104
Chattanooga (Fed.).....		264		1,326		1,246		(2)		1,193		1,123
Clarksville (Fed.).....		18		111		185		(2)		43		30
Columbia (Fed.).....		14		45		154		(2)		33		26
Jackson (Fed.).....		9		225		1,430		(2)		321		307
Johnson City (Fed.).....		36		296		165		(2)		33		33
Knoxville (Fed.).....		71		1,709		1,948		(2)		826		826
Memphis (Fed.).....	1	185	1,700	19571	11284	13396	(2)	(2)	1,257	2,999	948	2,808
Nashville (Fed.-Mun.).....		115		5,369		1608		(2)		410		353
Total.....									1,257	5,963	948	5,615
Texas.												
Abilene (Fed.).....		26		236		1291		(2)		197		186
Amarillo (Fed.).....		57		117		1125		(2)		77		30
Austin (Fed.).....		5		72		1106		(2)		49		(2)
Beaumont (Fed.-Mun.).....		49		427		1431		(2)		300		286
Brownsville (Fed.).....		37		1,437		1235		(2)		216		211
Brownwood (Fed.).....		6		250		1119		(2)		37		37
Bryan (Fed.).....		8		45		16		(2)		3		
Corpus Christi (Fed.).....		56		184		1154		(2)		67		67
Corsicana (Fed.).....		9		18		125		(2)		13		9
Dallas (Fed.-Mun.).....	157	907	301	1,946	72	1,497	10	18	350	1,299	281	1,198
Del Rio (Fed.).....		27		149		1240		(2)		236		87
El Paso (Fed.).....		72		265		1322		(2)		1,062		1,154
Fort Worth (Fed.-Mun.).....		156		3,436		13084		(2)		1,941		1,929
Galveston (Fed.).....	3	48	3	833	133	1137	(2)	(2)	13	89	11	64
Laredo (Fed.).....		99		7,570		1098		(2)		1,046		1,046
Orange (Fed.-Mun.).....		82		523		1358		(2)		241		233
San Angelo (Fed.).....		23		30		1160		(2)		35		16
San Antonio (Fed.).....		237		2,744		13414		(2)		2,683		2,609
Temple (Fed.).....		3		5		168		(2)		7		4
Waco (Fed.-Sta.).....		13		311		1126		(2)		82		82
Yoakum (Fed.).....		8		2,039		118		(2)		5		4
Total.....									363	9,685	292	9,252

1 Number applying for work.

2 Not reported.

## OPERATIONS OF PUBLIC EMPLOYMENT OFFICES, JULY, 1917 AND 1918--Concluded.

## UNITED STATES--Concluded.

State, city, and kind of office.	Applications from employers.		Persons asked for by employers.		Persons applying for work.				Persons referred to positions.		Positions filled.	
					New registrations.		Renewals.					
	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.	July, 1917.	July, 1918.
<i>Utah.</i>												
Ogden (Fed.).....		226		2,928		1 213		(2)		157		149
Salt Lake City (Fed.).....		249		2,410		1 621		(2)		539		507
Total.....										696		656
<i>Virginia.</i>												
Alexandria (Fed.).....		101		932		254		(2)		273		260
Norfolk (Fed.).....	20	667	1,217	12801	1 137	18592	(2)	(2)	85	8,460	18	8,405
Richmond (Fed.).....		214		3,649		3163		(2)		2,945		2,617
Richmond (Mun.).....		160		203		207		(2)		219		73
Roanoke (Fed.).....	324	52	453	2,688	472	1 329	(2)	(2)	554	245	232	150
Total.....									639	12,142	250	11,505
<i>Washington.</i>												
Bellingham (Fed.-Mun.).....	174	117	780	770	1 407	1 276	(2)	(2)	348	181	328	164
Everett (Fed.).....	(2)	14	(2)	56	1 60	1 76	(2)	(2)	(2)	54	(2)	41
Everett (Mun.).....	(2)	312	(2)	(2)	(2)	(2)	(2)	(2)	(2)	264	272	206
Seattle (Fed.).....	186	285	1,308	2,539	1 1949	11,839	(2)	(2)	791	1,506	762	1,435
Seattle (Mun.).....	4,050	5,106	6,819	9,715	(2)	(2)	(2)	(2)	6,824	10,008	6,143	9,118
Spokane (Mun.).....	1,890	1,860	2,570	2,270	(2)	(2)	(2)	(2)	2,524	2,216	2,422	2,194
Tacoma (Fed.-Mun.).....	541	638	1,181	8,192	1 1939	15,295	(2)	(2)	891	5,295	850	5,295
Walla Walla (Fed.).....	555	281	775	608	1 1040	1 647	(2)	(2)	601	630	560	488
Yakima (Fed.).....	549	543	1,257	1,144	1 1590	1 964	(2)	(2)	1,107	874	1,034	764
Total.....									13,086	21,028	12,371	19,705
<i>West Virginia.</i>												
Bluefield (Fed.).....		30		1,232		1 181		(2)		31		14
Charleston (Fed.).....		118		2,182		1 403		(2)		388		99
Clarksburg (Fed.).....		95		1,988		1 42		(2)		37		13
Huntington (Fed.).....		28		746		1 175		(2)		175		146
Wheeling (Fed.).....		93		854		1 307		(2)		234		65
Total.....										865		337
<i>Wisconsin.</i>												
Green Bay (Fed.).....		286		533		448		(2)		506		195
La Crosse (Sta.-Mun.).....	193	113	210	202	1 255	1 145	(2)	(4)	199	107	115	36
Madison (Fed.-Sta.-Mun.).....	1,392	7,075	6,170	6,224	14,774	3,784	(2)	(2)	4,725	3,957	4,267	2,564
Oshkosh (Sta.-Mun.).....	60	71	165	164	1 162	1 146	(2)	(2)	135	102	103	60
Superior (Sta.-Mun.).....	533	462	1,644	2,184	1,496	1,498	(2)	(2)	1,626	1,554	873	1,645
Total.....									6,685	6,226	5,358	4,500
<i>Wyoming.</i>												
Cheyenne (Fed.).....		124		1,357		1 300		(2)		393		272
Grand total.....									123,198	333,376	118,743	284,121

## CANADA.

<i>Quebec.</i>												
Montreal (Provincial)...	330	264	874	588	422	1 455	(2)	(2)	622	377	528	319
Quebec (Provincial)....	(2)	46	409	380	1 260	124	(2)	(2)	180	132	(2)	108
Total.....									802	509	528	427

1 Number applying for work.

2 Not reported.



EMPLOYMENT IN SELECTED INDUSTRIES IN JULY, 1918.

The Bureau of Labor Statistics received and tabulated reports concerning the volume of employment in July, 1918, from representative manufacturing establishments in 13 industries. The figures for July of this year as compared with those from identical establishments for July, 1917, show that there was an increase in the number of people employed in 6 industries and a decrease in 7. The largest increases—7.3 per cent and 6.6 per cent—appear in car building and repairing and leather manufacturing, respectively; while the greatest decreases—8.4 per cent, 7.3 per cent, and 5.2 per cent—are shown in silk, men's ready-made clothing, and boots and shoes, respectively.

The reports from all industries show an increase in the total amount of the pay roll for July, 1918, when compared with July, 1917. The greatest increase is 76.5 per cent in car building and repairing.

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JULY, 1917, AND JULY, 1918.

Industry.	Establishments reporting for July both years.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (-).	Amount of pay roll in—		Per cent of increase (+) or decrease (-).
			July, 1917.	July, 1918.		July, 1917.	July, 1918.	
Automobile manufacturing.	48	1 week..	127,962	128,473	+0.4	\$2,810,608	\$3,243,692	+15.4
Boots and shoes.....	67	...do....	58,861	55,782	-5.2	808,306	970,126	+20.0
Car building and repairing.	36	1 month.	37,593	40,336	+7.3	1,268,169	2,238,375	+76.5
Cigar manufacturing.....	62	1 week..	20,926	20,119	-3.9	258,765	297,432	+14.9
Men's ready-made clothing.	37	...do....	27,137	25,144	-7.3	453,625	496,608	+9.5
Cotton finishing.....	16	...do....	12,124	12,330	+1.7	172,631	240,407	+39.3
Cotton manufacturing.....	56	...do....	56,229	54,233	-3.6	648,817	885,904	+36.5
Hosiery and underwear.....	58	...do....	29,786	29,755	- .1	328,376	440,425	+34.1
Iron and steel.....	101	1 month.	193,761	191,651	-1.1	8,140,833	10,773,180	+32.3
Leather manufacturing....	37	1 week..	17,943	19,134	+6.6	271,294	396,131	+46.0
Paper making.....	52	...do....	24,127	24,350	+ .9	365,746	489,383	+33.8
Silk.....	48	2 weeks.	16,959	15,537	-8.4	384,213	464,792	+21.0
Woolen.....	51	1 week..	45,805	46,118	+ .7	672,577	878,325	+30.6

The table following shows the number of persons actually working on the last full day of the reported pay period in July, 1917, and July, 1918. The number of establishments reporting on this question is small, and this fact should be taken into consideration when studying these figures.

## COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN JULY, 1917, AND JULY, 1918.

Industry.	Establishments reporting for July both years.	Period of pay roll.	Number actually working on last full day of reported pay period in July—		Per cent of increase (+) or decrease (-).
			1917	1918	
Automobile manufacturing.....	28	1 week....	83,374	80,290	- 3.7
Boots and shoes.....	23	....do....	12,219	11,580	- 5.2
Car building and repairing.....	32	½ month....	29,754	34,370	+15.5
Cigar manufacturing.....	19	1 week....	4,913	4,459	- 9.2
Men's ready-made clothing.....	9	....do....	12,347	11,152	- 9.7
Cotton finishing.....	12	....do....	9,080	10,207	+12.4
Cotton manufacturing.....	37	....do....	29,516	28,315	- 4.1
Hosiery and underwear.....	21	....do....	12,389	12,117	- 2.2
Iron and steel.....	76	½ month....	149,245	145,313	- 2.6
Leather manufacturing.....	20	1 week....	11,539	13,450	+16.6
Paper making.....	19	....do....	7,509	7,980	+ 6.3
Silk.....	25	2 weeks....	10,160	9,294	- 8.6
Woolen.....	40	1 week....	38,702	36,709	(1)

<sup>1</sup> Increase less than one-tenth of 1 per cent.

In comparing the reports of the same industries for July, 1918, with those for June, 1918, nine show an increase in the number of persons on the pay roll and four a decrease. The largest increases—7.7 per cent and 4.4 per cent—are shown in car building and repairing and cotton finishing, while the greatest decrease—3.9 per cent—is shown in automobile manufacturing.

Of the 13 industries reporting, nine show increases and four decreases in the total amount of the pay roll in July, 1918, as compared with June, 1918. Car building and repairing shows an increase of 20.1 per cent and cotton finishing and cotton manufacturing each show an increase of 7.3 per cent. Iron and steel, automobile manufacturing, and silk show the largest decreases—6.4 per cent, 2.7 per cent, and 2.4 per cent, respectively. The reduction in iron and steel was reported as being due largely to shutting down for repairs.

## COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS IN JUNE, 1918, AND JULY, 1918.

Industry.	Establishments reporting for June and July.	Period of pay roll.	Number on pay roll in—		Per cent of increase (+) or decrease (-).	Amount of pay roll in—		Per cent of increase (+) or decrease (-).
			June, 1918.	July, 1918.		June, 1918.	July, 1918.	
Automobile manufacturing.....	47	1 week..	118,007	113,449	-3.9	\$3,021,209	\$2,939,563	- 2.7
Boots and shoes.....	66	....do....	51,036	51,757	+1.4	906,900	918,824	+ 1.3
Car building and repairing..	38	½ month	43,783	47,144	+7.7	2,108,869	2,533,685	+20.1
Cigar manufacturing.....	60	1 week....	19,575	19,930	+1.8	294,628	295,408	+ .3
Men's ready-made clothing.....	36	....do....	24,498	24,575	+ .3	479,337	484,536	+ 1.1
Cotton finishing.....	16	....do....	11,809	12,330	+4.4	224,020	240,407	+ 7.3
Cotton manufacturing.....	56	....do....	52,034	52,496	+ .9	794,285	852,618	+ 7.3
Hosiery and underwear....	56	....do....	28,389	28,781	+1.4	409,273	433,646	+ 6.0
Iron and steel.....	102	½ month..	192,017	189,562	-1.3	11,379,024	10,654,685	- 6.4
Leather manufacturing.....	36	1 week....	18,299	18,718	+2.3	387,209	386,879	- .1
Paper making.....	48	....do....	21,851	22,031	+ .8	431,601	455,145	+ 5.5
Silk.....	45	2 weeks..	13,581	13,353	-1.7	403,399	393,638	- 2.4
Woolen.....	49	1 week....	46,047	45,601	-1.0	842,463	866,905	+ 2.9

A comparatively small number of establishments reported as to the number of persons working on the last full day of the reported pay periods. The following table gives in comparable form the figures for June and July, 1918:

COMPARISON OF EMPLOYMENT IN IDENTICAL ESTABLISHMENTS ON LAST FULL DAY'S OPERATION IN JUNE, 1918, AND JULY, 1918.

Industry.	Establishments reporting for June and July.	Period of pay roll.	Number actually working on last full day of reported pay period in—		Per cent of increase (+) or decrease (—).
			June, 1918.	July, 1918.	
Automobile manufacturing.....	27	1 week....	71,391	67,409	— 5.6
Boots and shoes.....	24	do.....	12,145	12,657	+ 4.2
Car building and repairing.....	34	1 month....	36,438	40,271	+ 10.5
Cigar manufacturing.....	20	1 week....	4,561	4,569	+ .2
Men's ready-made clothing.....	7	do.....	10,515	10,349	— 1.6
Cotton finishing.....	12	do.....	9,677	10,207	+ 5.5
Cotton manufacturing.....	35	do.....	25,449	26,059	+ 2.4
Hosiery and underwear.....	22	do.....	12,243	12,595	+ 2.9
Iron and steel.....	79	1 month....	151,616	151,362	— .2
Leather manufacturing.....	20	1 week....	13,245	13,424	+ 1.4
Paper making.....	16	do.....	6,209	6,229	+ .3
Silk.....	22	2 weeks....	7,614	7,578	— .5
Woolen.....	40	1 week....	38,267	37,161	— 2.9

#### CHANGES IN WAGE RATES.

There were establishments in each of the 13 industries which reported increases in the wage rates during the period June 15 to July 15, 1918. A number of firms did not answer the inquiry relating to wage-rate changes, but in such cases it is probably safe to assume that no changes were made.

*Automobile manufacturing.*—An increase of 10 per cent was granted by two plants, affecting 15 per cent of the employees in one plant, and 50 per cent of the force in the other; while an increase of about 10 per cent was granted in some departments by another concern. The minimum wage in one plant was raised from 43 cents to 50 cents per hour. In one factory the average hourly rate was increased 0.0098 cent for productive work. One establishment allowed the entire force on hourly rates overtime over eight hours instead of nine hours. Slight individual increases were given by one plant, and another plant gave an increase to all of the men. Neither plant furnished any further data.

*Boots and shoes.*—One factory reported a change from week work to piece work, which increased the wages of 90 per cent of the force 50 per cent. One plant reported an increase of 10 per cent, but failed to give the number of the employees receiving the increase; another plant granted 45 per cent of the employees an increase of approximately 10 per cent; while two other factories granted a 10 per cent bonus, affecting 55 per cent of the force in one and all of the employees in the other, except the cutters, who received a bonus of 20



per cent. One establishment reported a small increase on special operations and another establishment granted an increase, but both failed to make any statement as to the amount of the increase and the number affected.

*Car building and repairing.*—Further increases to car shop men were reported by the railroads in compliance with General Order No. 27 promulgated by the Director General of Railroads. For information in regard to Supplement No. 4 to this order, see pages 131 to 134.

*Cigar manufacturing.*—An increase of 10 per cent was given to 16½ per cent of the force in one factory, and an increase of 2 cents per thousand for packing and 1 cent per hundred for rolling and bunch making was granted in another factory.

*Men's ready-made clothing.*—One firm made a few increases of approximately 5 to 7½ per cent. An increase was reported by one shop, but no further particulars were given.

*Cotton finishing.*—Six plants reported an increase of 10 per cent—2, to the entire force; 2, to 95 per cent of the employees; 1, to 96 per cent; while the sixth plant failed to make any statement as to the number receiving the increase. An increase of 2 cents per hour was granted by one establishment to all of the employees who received 31½ cents an hour or less.

*Cotton manufacturing.*—An increase of 15 per cent was given in 6 mills, affecting all of the employees in four plants, while two mills failed to give the number who received the increase. Eight mills reported a 10 per cent increase; and in one mill a 10 per cent increase, which affected about 40 per cent of the force, was made in lieu of a 10 per cent attendance bonus; while in two other mills all of the employees working full time received a bonus of 10 per cent. Slight increases, affecting all of the help, were reported by one plant.

*Hosiery and underwear.*—A bonus of 21 per cent was granted by one establishment. Seven plants gave a 15 per cent increase, this affecting all of the employees in five plants, while two failed to state the number affected. Twenty per cent of the employees in one mill and the entire force in three mills received an increase of 10 per cent. Practically the entire force in one plant was given a 5 per cent increase. One firm reported an increase, but made no further statement.

*Iron and steel.*—One plant granted an increase of 14½ per cent to 50 per cent of the force and 7½ per cent to the remainder; while another plant gave an increase of 13½ per cent to about 10 per cent and 7½ per cent to about 25 per cent of the force. Two establishments reported a 10 per cent increase, which affected only the salaried employees in one plant; the number receiving the increase

in the other plant was not given. An increase of about 10 per cent, affecting 50 per cent of the employees, was reported by one concern. In one establishment about 40 per cent of the employees, those who were working under the rules of the Amalgamated Association of Iron, Steel and Tin Workers, were increased  $7\frac{1}{2}$  per cent, and the other 60 per cent, who were working on a day rate, were advanced 50 cents per day. An increase of approximately 5 per cent was given to the entire force in one factory. Seven plants granted increases ranging from 1.4 to 3 per cent, affecting 80 per cent of the men in one plant, about 52 per cent of the force in one, 50 per cent of the employees in 3 plants, approximately 40 per cent in another plant, and about 10 per cent in the seventh plant.

*Leather manufacturing.*—All of the employees in four establishments and 7 per cent in one establishment received a 10 per cent increase, while about 10 per cent of the force in another plant were granted an increase of approximately 10 per cent. One firm reported an increase of 15 cents a day to the men in the tannery department, which constituted about 65 per cent of the total employees; and a slight increase to all of the employees, including the office force, was given by one concern.

*Paper manufacturing.*—One plant reported a general increase of 20 to 25 per cent; one, an increase of 15 to 18 per cent, affecting the whole force; and another, an increase of approximately 15 per cent, but no statement was given as to the number affected. An average 12 per cent advance throughout the mill was granted by one firm; and a 12 per cent increase, affecting 4 per cent of the force, was made by another concern. About 70 per cent of the force in one establishment was increased 10 per cent; a large proportion of the force in one plant, 5 to 10 per cent; and approximately 15 per cent of the employees in another plant, 9 per cent. One mill gave an increase of  $6\frac{1}{2}$  per cent to 10 per cent of the force, and another mill reported an approximate 6 per cent increase, but failed to give the number affected thereby. An increase of 5 per cent to all of the employees was granted by one plant. All of the men in one establishment, except head mechanics, were raised 20 cents a day, and all of the women, 10 cents a day; and the men in another establishment were increased approximately 10 cents per hour. Three plants granted an increase, which was general in one plant, but no further data were reported.

*Silk.*—An increase of 7 to 15 per cent, according to the number of the machines which the employees attended, was given by one mill. The entire force in one establishment received an increase of 8 to 12 per cent. A 10 per cent increase was granted to all of the employees by three mills. The weavers, or about 45 per cent of the force in

one establishment, received an increase of 7 per cent; while the full force in another plant received a 4 per cent increase.

*Woolen.*—It is significant to note that about 98 per cent of the firms reporting show increases in the wage rates during this period. A 15 per cent increase to all of the employees was reported by one concern. One plant granted an advance in wages of 11 per cent, but gave no other information. A 10 per cent increase was granted by 46 mills, affecting all of the employees in 37 mills, approximately all in one mill, all except the office force in one, all but the office force, overseers and second hands in one, 50 per cent of the force in another, while 5 failed to report as to the number who received the increase. The entire force in two establishments received an increase of 8 per cent.

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#### CENTRAL RECRUITING OF UNSKILLED LABOR BY UNITED STATES EMPLOYMENT SERVICE.

The purpose and policy of the United States Employment Service is set forth in General Order No. 1, recently issued by the director general, as follows:

1. The purpose of the United States Employment Service under the war emergency program is to create an organization which will bring the worker and the position together in the manner best serving the national interests.
2. The administrative unit of the United States Employment Service will be the State. The work in each State will be under the jurisdiction of a Federal Director. Federal directors for States will report to the Director General of the United States Employment Service and will be held responsible by him for results in their respective States.
3. The United States Employment Service is a national service and therefore the national interests will at all times prevail. The Employment Service in each State should be conducted on a cooperative basis between the State and Nation, and each State should ultimately be expected to share the expense with the Federal Government.
4. Employment offices will be established through the Federal Director for the State in such places as conditions may warrant. Superintendents will be in charge of such employment offices and will report to the Federal Director for the State in which located.
5. Every employee of the Employment Service will be expected to render efficient service and conform to good employment practices. Merit will be the basis for promotion and every effort will be made to fill the better positions in the service from within the organization.

#### REGULATIONS FOR CENTRAL RECRUITING OF UNSKILLED LABOR.

On August 1, 1918, as urged by the President in his proclamation of June 17, which was published in full in the MONTHLY LABOR REVIEW for July (pp. 136, 137), the United States Employment Service began to exercise control over the recruiting and distribution of unskilled labor for war production. On the eve of the inauguration of this central recruiting program Secretary Wilson, as war labor



administrator, issued an appeal for full cooperation by employers and employees and the general public, and a warning that a smoothly operating machinery can not be expected at the outset. This warning was repeated in a statement by the War Labor Policies Board, which also announced that violations of the recruiting regulations will be dealt with through appropriate action by the War Industries Board and other enforcing agencies of the Government. The regulations for the central recruiting of unskilled labor were announced by the Employment Service on August 1, as follows:

#### I. BY EMPLOYERS IN WAR WORK.

To minimize the danger of interruption to war work in effecting the change from present competitive methods of labor recruiting, the Government central labor recruiting program, as heretofore announced, provides that at the outset employers may continue to hire unskilled laborers who apply for work without solicitation, and that private field forces may be utilized under control of the United States Employment Service.

In order that the United States Employment Service may be as effective as possible it is highly important that all employers engaged in war work keep the local office of the United States Employment Service informed from day to day of their exact needs for unskilled labor.

The regulations which govern private recruiting are as follows:

1. Employers may continue to hire workers who apply at the plant without solicitation, direct or indirect.
2. The Federal director of employment in each State is authorized to grant permission to employers to use their own field agents for recruiting unskilled workers under his direction and control for war industries located within the State.
3. Permission to recruit unskilled laborers in States other than the one in which the work is located may be secured from the Director General of the United States Employment Service upon the recommendation of the Federal director of employment for the State in which the men are needed. Such permission will be communicated by the Director General to the Federal directors for the States in which the labor is needed and from which it is to be recruited.
4. No unskilled labor may be transported from one State to another without authorization from the Director General, to be secured by application through the Federal director of employment for the State in which the labor is recruited. No laborers may be moved from one employment district to another within a State without authorization from the Federal director of employment for the State.
5. Employers who receive permission to transport workers from one State to another or from one district to another within any State must file a statement with the nearest employment service office, of the number of men transferred, the wages offered, and other terms and conditions of employment promised to the men.
6. Employers who are permitted to use their own field agents for recruiting labor must in no case use any fee-charging agency or use any agents or labor scouts who are paid for their work on a commission basis.
7. All advertising for unskilled labor, whether by card, poster, newspaper, handbill, or any other medium, is prohibited after August 1, 1918. This applies to all employers engaged wholly or partly in war work whose maximum force, including skilled and unskilled laborers, exceeds 100.

No restrictions are for the time being placed upon employers engaged in war work in recruiting their own skilled labor, other than that they should so conduct their

efforts as to avoid taking, or causing restlessness among, men who are already engaged in other war work, including railroads, mines, and farms, as well as work covered by direct and subcontracts for departments of the United States Government.

Federal Directors of the United States Employment Service for the several States are instructed to give every possible assistance to employers engaged in war work who desire to recruit skilled labor.

Employers in war work are at present under no restrictions as to advertising for skilled labor, other than that all advertising should be designed and conducted so as to avoid creating restlessness among men in war work (as above described).

## II. EMPLOYERS IN NONWAR WORK.

Nonwar industries should not offer superior inducements or in any other way undertake to compete for labor with the Government or with employers engaged in war work (as above described). Observance of the letter and spirit of this provision is necessary for the efficient prosecution of the War. Methods of recruiting and of advertising which do not offend against it are permitted.

Down to July 31 war industries had advised the Employment Service that approximately 450,000 unskilled laborers would be needed during the two months ending October 1. This number was apportioned among the States and the Federal director of employment in each State was notified of the quota which his State is expected to furnish. As circumstances demand, further quotas will be assigned to the States.

While the prohibition against recruiting of unskilled labor by employers engaged in war work, except under the direction of the United States Employment Service, does not include railroads and farmers, the transportation and agricultural industries will be assisted by the United States Employment Service in every way possible.

Specialization in farm and railroad labor supplying is a feature of the central labor recruiting program, and the leading branch offices have special railroad labor and farm labor divisions, while in the West and in some places in the South and East offices have been established which devote their entire attention to supplying farm labor and railroad unskilled labor. Recently the employment offices of railroads in western territory were made a part of the Federal Employment Service system. This statement is made necessary by the existence of an erroneous belief that railroads and farms must obtain labor through means other than the United States Employment Service. Railroads and farms will not only be assisted by the Service in getting unskilled labor, but they will be protected by the Department of Labor from recruiting by other industries.

Since January, 1918, all State employment services have been federalized and made a part of the United States Employment Service which was organized in the Department of Labor at that time.

More than 500 branch offices have been established throughout the country, and the paid personnel numbers between 3,000 and 3,500. The recruiting plan being carried out by the Employment Service is the result of conferences with the leading practical representatives of war industries, employment management, labor, and experts in personnel supervision. The director general has received the assurance of manufacturers and of trades-unions that they welcome Government supervision of war labor mobilization. A most important step in the recently announced labor recruiting program is the prohibition of all advertising for unskilled labor by employers with a force of over 100 workers engaged wholly or partly on war work.<sup>1</sup> In this connection the Employment Service has defined war work as—

1. The manufacture of products or the erection of structures directly or indirectly supplied to some department of the Government for use in connection with the war. "Indirectly supplied" includes goods delivered under subcontracts to Government contractors.

2. Coal mining is wholly war work.

3. Railroads and farms are engaged in war work to the extent that under this program they are protected from all recruiting by other industries.

The making of products which may ultimately be used for war purposes but which are not to be delivered either directly to the Government or to some contractor who uses them in producing or as a part of products to be delivered to the Government is not considered war work.

The Employment Service has for several weeks been carrying on a nation-wide publicity campaign in order to bring home to every citizen the call for universal cooperation on which the Federal Employment Service depends for complete success in carrying through its centralized war labor recruiting program. Governors of every State, mayors of all the important cities in the country, the entire organization of the Council of National Defense, the Chamber of Commerce of the United States and other business organizations, the American Federation of Labor and its State branches, virtually every moving-picture theater and every newspaper, hundreds of banks, and 35,000 four-minute men of the Committee on Public Information, are carrying the message of the United States Employment Service to 100,000,000 Americans. This advertising campaign is intensive and will terminate on October 1.

In the six months from February 1 to August 1 the employment service directed to actual employment on the Nation's farms a total of 106,860 permanent farm workers.

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<sup>1</sup> This order was later modified, the Federal directors of employment in 22 States being authorized for the time being to insert in newspapers, in behalf of firms authorized to recruit labor in their States and which will pay for them, advertisements beginning with the following form: "United States Employment Service needs laborers (name of firm)." The advertisement should state the nature and location of the work but should not mention wages. Men must be asked in the advertisements to apply at a United States Employment Service office.



**MEDICAL EXAMINATION OF APPLICANTS FOR WORK.**

The committee on labor of the Council of National Defense has recommended to the Secretary of Labor that medical examination of applicants for work be made a part of the Government's labor recruiting program. This recommendation was the outcome of a conference under the auspices of the national subcommittee on welfare work of the committee on labor held in New York City July 15. The following resolution which was adopted on that occasion embodies the consensus of opinion of experts on this subject, representatives of labor, employers, industrial physicians, and public-health workers:

It is the sense of this conference that the physical examination of workers is primarily a measure of health conservation and also essential to maximum production—a war necessity.

That the purpose of a medical examination is not to eliminate the worker from industrial service but to adapt him to the work he is physically fitted for.

Therefore, be it resolved, in view of the publicly announced policy of the Government centralizing the recruiting of labor in the United States Employment Service, that this conference recommend that medical examination of the workers be one of the functions of the Government labor recruiting agency.

It further recommends the establishment of a central examination board composed of representatives of the workers, employers, and the Government.

That this board issue examination cards indicating the health of the workers and classify according to physical fitness.

Such a system of centralizing physical examination of workers does not prevent employers from maintaining their own system of physical examinations and follow-up methods for the purpose of conserving the health of their workers.

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**WORK OF OHIO FREE LABOR EXCHANGES FOR YEAR ENDING JUNE 30, 1917.**

The report of the work of the free labor exchanges of Ohio for the year ending June 30, 1917,<sup>1</sup> includes returns from 21 cities, which is an increase of 14 over the number of public employment offices in the State during the preceding fiscal year. The report states that in 1916-17 there was a greatly increased industrial activity in the State, "very largely due to war orders, and a corresponding shortage of available help. With the declaration of war with Germany, attended with thousands of enlistments, the shortage of labor became more acute." This increased activity is reflected in the returns, which indicate a total of 175,955 persons reported placed in positions as compared with 141,253 during the preceding year—an increase of 24.6 per cent. The work of the 21 offices is indicated by the table which follows.

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<sup>1</sup> Ohio. Industrial Commission. Department of investigation and statistics, report No. 34. Work of the free labor exchanges of Ohio for the year ending June 30, 1917. Columbus, 1918. 42 pp.

SUMMARY OF WORK OF FREE LABOR EXCHANGES IN OHIO FOR YEARS ENDING  
JUNE 30, 1916 AND 1917.

Item.	Year ending June 30—		Per cent of increase, 1917 over 1916.
	1916	1917	
New registrations.....	110,749	113,776	2.7
Renewals.....	237,244	234,267	1.3
Total applications for work.....	347,993	348,043	( <sup>2</sup> )
Number requested by employers.....	205,558	253,687	23.4
Number referred to positions.....	171,520	217,029	26.5
Number reported placed.....	141,253	175,955	24.6

<sup>1</sup>Decrease.<sup>2</sup>Less than one-tenth of 1 per cent.

It will be seen from the table that while the increase in the number of applications for work was practicably negligible the number of persons requested by employers increased 23.4 per cent in 1916-17 over 1915-16. This prompts the report to note that "it has been necessary for the offices to choose the 253,687 requested by employers from 348,043 applicants, approximately three out of every four applicants, whereas, during the fiscal year ending June 30, 1916, it was necessary to choose only three out of five applicants, and during the fiscal year ending June 30, 1915, the offices had calls for only one out of every five applicants."

The record of the 175,955 placements made by the 21 offices is summarized in the following statement showing the number and per cent in each general occupation group:

Of the 108,693 males placed 59,551, or 54.8 per cent, were laborers; 14,239, or 13.1 per cent, were day workers (men employed on odd jobs lasting only a few days, a day, or a part of a day); 3,125, or 2.9 per cent, were employed in skilled building trades; 2,816, or 2.6 per cent, were farm and dairy hands and gardeners; 2,006, or 1.9 per cent, were employed in skilled metal trades.

Of the 67,262 females placed 53,877, or 80.1 per cent, were day workers and laundresses; 4,278, or 6.4 per cent, were engaged in hotel and restaurant work; 3,270, or 4.9 per cent, were engaged in general housework; 2,164, or 3.2 per cent, were engaged in factory work, including the sewing trades.

The report notes a number of "high-grade" placements in which the salaries paid ranged from \$1,020 to \$5,000 per annum for males, and from \$600 to \$1,200 for females. Commenting on this record, the report says:

Practically no private agency placing high-grade help such as referred to here charges less than 30 per cent of the first month's salary as a fee for securing a job. Figuring on this basis, the 4,460 high-grade applicants placed by the officers, if they had been placed in positions paying the minimum salaries included (\$75 for men and \$40 for women) would have paid over \$82,000 in fees if they had secured their positions through private employment agencies.

Further, as the private employment agencies charge either the employer or the applicant from \$1 to 10 per cent of the first month's wage for each placement of laborers and semiskilled help, the balance of the 175,955 placements reported by the offices would have cost through private agencies more than \$268,000 per year, making a total of more than \$350,000 per year for all placements.

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#### MEETING OF AMERICAN ASSOCIATION OF PUBLIC EMPLOYMENT OFFICES.

Notice has been received by this bureau from the secretary-treasurer of the American Association of Public Employment Offices to the effect that the sixth annual meeting of the association will be held at Cleveland, Ohio, September 19, 20, and 21. The fact that this announcement came just as the MONTHLY LABOR REVIEW was going to press makes it impossible to include the program at this time.

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#### VALUE OF THE BRITISH NATIONAL EMPLOYMENT EXCHANGES DURING THE WAR.<sup>1</sup>

1. The employment exchanges, which are administered by the Ministry of Labor, have proved to be of the greatest value in connection with the organization of the labor supply during the war. This part of the State machinery, which was set up in 1910 for dealing with the ordinary problems of employment in times of peace, has been used successfully for the distribution of the man power of the nation during the war. Experience has made it clear that if the exchanges had not been already in existence it would have been necessary to set them up for war purposes, and a system so improvised would inevitably have been relatively much less efficient.

2. Prior to the war, exchanges had been established in all the principal towns in the United Kingdom, and local agents appointed in the small towns. The whole system is controlled by the employment department of the Ministry of Labor, and, for administrative purposes, the United Kingdom is divided into nine divisions, each under the control of a divisional officer. There are now 391 exchanges and 173 local agents acting as employment exchanges in the smaller centers. There are in all 1,080 local agents who are part-time officers appointed primarily for the administration of unemployment insurance in districts where the establishment of an exchange would not be justified. Some idea of the volume of work transacted by the exchanges may be gained from the fact that during the year 1917 they received a notification of vacancies for just under 2,000,000 work-people, of which over 1,555,000 were filled, and that the number of

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<sup>1</sup> This memorandum by the British Ministry of Labor has been received by the Bureau of Labor Statistics in response to an inquiry from the United States Department of Labor as to the value of the national employment service in Great Britain.



separate individuals for whom employment was found during the year was over 1,375,000.

3. Each exchange forms a center at which individual workpeople can be dealt with. Throughout the war it has been necessary to collect workpeople of various classes and to arrange for them to take up work at various places throughout the Kingdom. The exchanges have made it possible to do this. The demands of the Government for labor have been made known at the exchanges, and the special arrangements for attracting labor to work of national importance have been administered through them. It is hardly necessary to mention that whatever the general character of the arrangements may be for transferring workpeople in large numbers from place to place there will be innumerable small difficulties arising which can be removed only by a personal interview with the workpeople concerned. The existence of the exchanges has made it possible to conduct these interviews in the districts in which the workpeople are resident and so very greatly to facilitate the distribution of labor.

4. The essential features in the working of the exchanges can best be illustrated by a brief account of the method of circulating vacancies, of determining and giving effect to priority in labor requirements, of advancing railroad fares, and of administering schemes of enrollment, substitution, etc., followed by some notes with special reference to women and juveniles.

5. *Circulation of vacancies.*—For this purpose the country is divided into 45 "clearing areas." The number of exchanges in the clearing area varies according to circumstances, from 2 to 31. In each area there is one "clearing exchange."

If an exchange can not fill a vacancy from its own register it transmits particulars at once (preferably by telephone) to the clearing exchange, which then "clears the area"—i. e., ascertains whether the vacancy can be filled from any exchange within the area.

If the vacancy can not be filled at once within the area, and it is of such a nature that a worker may reasonably be brought from a considerable distance in order to fill it, particulars are at once sent by the clearing exchange to the "national clearing house" at the head office in London. The particulars are printed in an abbreviated form and dispatched (usually on the day of receipt at the head office) to every exchange in the country. Thus, any exchange which has a suitable applicant for the vacancy on its register is placed in a position to submit him for engagement.

Cancellations of vacancies are notified to the national clearing house and circulated by it in a similar way.

The number of vacancies in circulation from the national clearing house on any given day is now about 21,000. The system adopted

for enabling the exchanges to deal with this large number of vacancies is as follows: Once a week a "newspaper" is issued which contains all current vacancies and supersedes all previous issues; the vacancies are arranged in the newspaper by occupations, and by clearing areas under occupations. Each day amending sheets are issued notifying new vacancies and cancellations of old vacancies. Thus, on any particular day, the current issue of the newspaper and the sheets amending that issue give the position up to date.

The newspaper consists of several parts, the chief of which are the "Labor Priority Gazette" containing specially important vacancies, and the ordinary national clearing house newspaper containing the bulk of the other vacancies.

6. *Priority*.—In order that special attention may be paid to important vacancies on munitions work or other war work, a system is in operation under which such vacancies are graded in various degrees of priority, and the exchanges are instructed to try to fill them in preference to any other vacancies. The degree of priority attaching to a vacancy is indicated by a special marking in the Labor Priority Gazette.

Priority is determined by the labor priority committee of the Ministry of National Service, on which the various employing departments as well as the Ministry of Labor are represented. It has been found by experience that it is essential to require that a vacancy should be notified to an employment exchange before it is considered for priority; otherwise there is no guaranty that it represents a real current demand, or that it can not be filled in the ordinary way without the special assistance of priority.

It is obviously important that the number of demands accorded priority should be kept as few as possible; otherwise, the value of the priority accorded becomes quite illusory.

7. *Advance of fares*.—In order to facilitate the transfer of labor from one district to another, the exchanges are empowered to advance the railway fares of workpeople traveling over 5 miles to employment found through the exchanges. This they do by issuing a railway warrant which is exchangeable for a railway ticket at the booking office. The refund of the amount of the fare must be guaranteed either by the employer or by the worker. The employer frequently undertakes to repay the fare without recovering it from the worker, and another common practice is for the employer to repay the fare and then recover it by deductions in small amounts from the worker's wages. If the worker is placed on "work of national importance" a reduced fare (equal to five-twelfths of the full ordinary fare) is repayable to the exchange. The amount of the fares advanced under these arrangements is now about £10,000 [\$48,665] a month.

In addition there are many cases under enrollment schemes (see below) in which fares of workers transferred are paid by the State without recovery.

8. *Schemes of enrollment.*—One of the great needs which made itself felt very early in the war was that of concentrating labor on the most urgent work, and in order to effect this on the necessary scale special inducements had to be offered. One important form which these inducements have taken is to be found in the various schemes of enrollment under which the worker is guaranteed certain terms in return for undertaking to transfer his labor as directed. The terms guaranteed usually include the guaranteeing of not less than the previous rate of wages or, in some cases, a specified minimum rate together with an allowance to dependents when the man is sent to work at a distance from his home. The three principal schemes may be briefly described as follows:

War munition volunteers: Men skilled in certain essential trades, chiefly engineering and shipbuilding, who enter into an agreement with the Minister of Munitions to undertake work on munitions in the employ of any firm specified by the Minister of Munitions.

War work volunteers: Men who have been accepted for vacancies in work of national importance which has been sanctioned by the minister of national service and who enter into an agreement with the minister of national service. War agricultural volunteers are enrolled on similar lines for agricultural work.

*Army reserve munition workers.*—Men who are either discharged from the army or are surplus to military requirements and enter into an agreement with the Minister of Munitions to undertake work for war purposes in the employ of any firm specified by the Minister of Munitions. These men are available as substitutes in civil employment in exchange for men of higher medical category who are made available for service with the colors.

9. *Provision of substitutes for men released from the colors.*—Elaborate arrangements in cooperation with the military service tribunals and the other Government departments concerned have been made for this purpose. The substitutes are drawn either from certain sources or from men of relatively low medical category who are already serving in the army.

10. *Workmen from the Dominion and the Colonies.*—Skilled workmen have been recruited in Canada by a special mission, and have also been sent over by the Transvaal Chamber of Mines and the Australian Government. The whole of the work of placing the men in employment has been undertaken by the employment exchanges in the United Kingdom. Efforts have also been made by the department to retain in this country colonial workmen who have been brought



over under contract with private firms or have come to this country on their own initiative by the grant of a separation allowance to the dependents abroad of such men as are placed by the department on munitions work. In return for this allowance the men enter into a contract to undertake munitions work whenever they may be needed in the United Kingdom.

11. *Discharged sailors and soldiers.*—Throughout the war the employment exchanges have been used for replacing in civil work men who have been discharged from the fighting services. The discharge of every man is notified to the appropriate exchange and he is asked to communicate with that exchange if he has any difficulty in finding suitable civil employment. As a result of these arrangements the employment exchanges have found for some 116,000 men their first civil employment after discharge from the navy or army.

12. *Women.*—Valuable work has been carried out by the employment exchanges in the organization of the supply of women's labor for national purposes. The demand for women's labor for Government work of all kinds is now practically concentrated at the employment exchanges. The Ministry of Munitions have made it obligatory on all national factories and controlled establishments to recruit their women's labor only through this channel and from the outbreak of the war to May of this year 643,149 vacancies for women in all kinds of munitions work have been notified to the exchanges of which 98 per cent have been successfully filled. In all cases munition factories discharging labor have been instructed to give the employment exchanges at least a fortnight's notice of the number of women they propose to release and arrangements are made for the exchanges to be consulted as to the disposal of the labor elsewhere and as to the release in the first instance of the women who are qualified for other employment. In many cases it has been necessary, in order to meet the demand for women for munitions work, to draw upon women in other districts. In certain cases this has necessitated the arrangement by the department of special traveling facilities or the organization through local committees attached to the employment exchanges of lodging accommodations for the women brought in from other districts. A system of medical examination is also in force by which no women are sent forward through the exchanges for munitions work at a distance unless they can produce a satisfactory medical certificate from one of the local doctors, on the department's panel for the purpose.

By arrangement with the War Office, the Admiralty, and the Air Ministry, the whole arrangement for organizing the supply of women for enrollment in the different women's corps for service under the

Admiralty, War Office, and Air Ministry, respectively, are now in the hands of the employment exchanges.

The responsibility of supplying through the civil service commission women's staff to the different central Government department has also been laid on this department, and the women required are supplied through the exchanges.

In addition special steps have been taken by the department to impress upon employers the desirability of making good any depletion in the supply of labor by the employment of an increased number of women and large numbers of women have been placed through the exchanges in a very wide variety of occupations normally undertaken by men.

13. *Juveniles*.—Juvenile employment committees have been set up in connection with the employment exchanges in most of the principal towns. They work in close cooperation with the local education authorities and the schools and have been of great value in dealing with the difficult problems which have arisen from the violent fluctuations in the demand for juvenile labor in various industries as a result of the war. They have had to deal with the excessive demand for juvenile labor in the munition industry and the metal trades generally and they have assisted in recruiting boys and girls for various forms of employment under Government departments. The committee have been active in endeavoring to mitigate the unsatisfactory features of this abnormal war employment and to secure some improvement in the conditions affecting juveniles.

14. *Advisory committees*.—For the efficient working of the exchanges it is essential to have the cooperation and support of local employers and workpeople, as without this cooperation and support the exchanges must largely fail to reach the level of usefulness of which they are capable. In order to bring local employers and workpeople into close touch with the exchange, and to give them an insight into its working and some share in its direction, local advisory committees have recently been set up in connection with the various exchanges.

## LABOR ORGANIZATIONS.

### THIRTY-EIGHTH ANNUAL CONVENTION OF THE AMERICAN FEDERATION OF LABOR.

The Thirty-eighth Annual Convention of the American Federation of Labor was held in St. Paul, Minn., June 10-20, 1918. Four hundred and forty-eight delegates were in attendance, representing 101 national and international unions, 20 State branches, 88 central bodies, and 51 trade and Federal labor unions, and fraternal delegates from the British Trades Union Congress, the Canadian Trades and Labor Congress, Women's International Union Label League, and the National Women's Trade Union League.

Hon. William B. Wilson, Secretary of Labor, visited the convention, and stated that he came to convey in person the greetings of the President of the United States and his high appreciation of the splendid work that has been done by the officers and the rank and file of the organized-labor movement for the assistance of our country in the war.

Two representatives of the Belgian labor movement and members of a mission of the French Government addressed the convention. These representatives expressed the gratitude of the workers and people of their respective countries for the policy adopted by the Federation in support of the war.

The report of the secretary showed the funds of the Federation to be in a substantial condition, the balance on hand at the close of the seven months since the previous convention, the fiscal period for which the report was submitted, being \$165,320.98. The membership for the fiscal year ending April 30, 1918, was 2,726,478, an increase of 355,044 over the membership of last year.

The report of the executive council gave detailed information upon the activities of the Federation during the fiscal year, and discussed fully the war-labor policy of the various departments of the Government, as well as the declarations of the various commissions created to deal with questions relating to working conditions and the adjustment of labor disputes. Loyalty to the Government and to the great cause to which it has been committed in this war was the keynote of the report of the executive council as well as the deliberations and discussions of the convention. Under the caption "Avoid interruptions of war production," the executive council made the



following appeal for the fullest cooperation of labor in the program of the Government for the production of necessary war materials:

The workers in war production are practically a part of the fighting force, the Army and Navy. They can not stop work without interfering with the whole program. The whole campaign from production to where munitions are used in the field must be so precise, so well articulated, that nothing shall interfere with any forward movement if we are to check and defeat the best organized war machine the world has ever seen. No action should be taken in the shops or on the field not in harmony with the purposes of the war.

Organized labor, susceptible to every impulse and stimulus of right, must recognize in its impartial and exacting judgment that the hour has struck for it to emphasize and declare its purpose and attitude anew and to help meet the overpowering force of circumstances and necessities which confront our Nation.

Organized labor, true to its traditions, has proffered its full and comprehensive support to the Commander in Chief, and it will not now be paralyzed by infirmity of purpose or action.

The pressing need at this moment of imminent peril is that ships be provided whereby American soldiers, food, and munitions can be transported to reenforce the American Army already fighting with the soldiers of France and England. In order that this may be accomplished there must be full cooperation and earnestness of the people of our country. We advise the organized-labor movement that in this crisis it must prove its loyalty to our Republic and to our fellow men and demonstrate its capacity to deal with big problems and big needs in a constructive manner.

Deeply impressed by the events upon the western battle fronts, we are constrained to place before our fellow workmen a definite course of action. Yielding to no one in our determination to maintain for the working people of this country the right to work or not, to work for a reason or no reason, yet at a time when the destiny of the democratic institutions of the world are trembling in the balance (and still holding sacred the principles of the rights enunciated), we can well afford to waive their exercise in a patriotic desire that the issues of this war may result in a successful termination.

In several departments charged with war production agencies have already been established to adjust labor difficulties as they arise. These agencies have been supplemented by a larger program, national in scope, which has just been made effective by Executive order. In accord with this plan, agencies will be established in all war production which will maintain the rights of workers and at the same time make possible continuous production. Workers, reserving the right to strike, should submit all differences to these agencies and in every way seek to adjust difficulties without cessation of work. No strike should be inaugurated which can not be justified to the man risking his life on the firing line in France.

An equal responsibility and duty devolves on employers to do everything within their power to maintain continuous production. As the best surety for this purpose, we urge all employers to endeavor to adjust all grievances of employees, to establish and maintain equitable, humanitarian conditions of work. The workers of America wish to cooperate in winning this war. They can do so with unreserved ability and spirit if they go to their work with the sense of justice and rights respected. Employers, inaugurate no industry policy which can not be justified to the man risking his life on the firing line. \* \* \*

We must either voluntarily meet this great world need and crisis with a full appreciation of the far-reaching consequences of every industrial decision and action, or else we shall be deemed unworthy of the opportunities of free men, and a strong force will interpose to compel us to render the necessary service. If we voluntarily waive

our rights to strike in this hour of dire necessity, there will be no opportunity to stigmatize our movement as unresponsive in the hour of need, and our appeal for justice will take on redoubled force when the terrific conflict shall have been brought to a close.

Unsparring industry and attention, unswerving and unselfish fidelity is the talisman for an immense capacity for ceaseless progress, and we are sure that in acting upon the suggestions herein offered, the American labor movement will embody a prudence and discernment that will meet the approbation of the people of our own country, as well as the profound gratitude of the workmen of other countries engaged in this terrific struggle.

We urge that our movement respond to the call (conscious that the future is involved in profound uncertainty), so that when the history of this great contest is written, the service performed by the workmen of America will comprise its most conspicuous feature.

The American labor mission to Great Britain and France submitted a report to the convention upon their visit to these countries. The purpose of the visit was to carry to the workers of the countries of the Allies information upon the viewpoint of the American trade-union movement upon war aims, and the visit was potentially effective in clarifying the situation in this respect. The report made comment upon the observations of the members of the mission in regard to the attitude of the public, the workers, and the soldiers toward the War, and expressed the conviction of the soundness of the public will and of the public understanding in Great Britain and France and of the unyielding determination of the peoples of both countries to win the War without regard to the cost. The report gave high praise to the conduct and spirit of the American soldiers and referred with pride to the place of high respect and regard which they have won for themselves abroad.

A report was also read to the convention from the labor commission which was sent to Mexico to strengthen fraternal relations already existing between Mexico and the United States, and to prepare the way for definite plans for the holding of the Pan American workers' conference. In setting forth the situation in Mexico as it relates to the organization of the workers and the influence of their activities, the report states in part as follows:

It must be borne in mind that they were denied freedom of action or thought for ages, and when the revolution gave them opportunity for action they were at the mercy of syndicalists and professional men who had become ultraradical by reading. \* \* \* At the same time there are many clear thinking men and women who realize that their movement is not bringing results, and are strongly of the opinion that they must unite on a plan similar to ours. \* \* \* They realize that cooperation and helpfulness from the north will be fully assured in a general way and more available by their participation in the Pan American Federation of Labor. In the building of a virile intelligently organized national labor movement in Mexico, we see their greatest opportunity and guaranty for democracy.

The convention indorsed the position of the executive council in refusing to participate in any interallied labor conference in which

representatives of enemy countries would be present, in the following language:

We declare the position of the executive council in refusing to sit in conference at this time with delegates from countries with which we are at war is logically, morally, and absolutely correct. We dare say, it is our judgment that no representatives to a conference of this nature could emerge from either of the central powers without the approval and consent of the autocratic rulers of those countries; hence, under such circumstances there could be no true expression of the hopes and the aspirations, and the true attitude of the toiling masses in those autocratically ridden, misgoverned, militaristic Governments.

The convention reaffirmed its previous declarations upon the subject of peace terms, paramount among which are the following:

A league of the free peoples of the world in a common covenant for genuine and practical cooperation to secure justice and therefore peace in relations between nations.

No political or economic restrictions meant to benefit some nations and to cripple and embarrass others.

Recognition of the rights of small nations and of the principle, "No people must be forced under sovereignty under which it does not wish to live"; and,

"Involuntary servitude shall not exist except as a punishment for crime, where the party shall have been duly convicted"; and, last but not least,

"Establishment of trial by jury."

President Gompers was urged to pay a visit to Great Britain and France, in the belief that such a visit might be of inestimable value not only to the peoples of those countries but to the people of our own country as well.

The following recommendations of the committee on education were adopted by the convention:

Labor, and it should not be necessary to add that labor includes the teachers, must not permit more dramatic phases of the war situation to blind them to the importance of the kind of training the children of the people receive. We recommend that this convention approve the three model laws offered by the executive council, providing well-balanced representative State boards of education, and advisory local committees, and a part-time compulsory school attendance law; and we further recommend that all State and local central bodies be urged to make every effort to secure the enactment of similar legislation. We would call attention to the fact that these model laws are carefully drafted to avoid duplication of administrative machinery, and to secure unity in our school system; and we would warn against any attempt to modify the legislation to afford an opening for a dual system. Our public school system must remain essentially a unit if we are to be a unified people.

Supplementing the success of the Federal vocational educational law already demonstrated and the plans for part-time compulsory education, your committee believes that this convention should urge a reorganization of our common schools in the interest of the children of all the people. Labor played an important part in securing the establishment of our free public schools, but from the beginning they have been designed especially for the few who could go on to high school and college. They must continue to offer preparation for high school and college, and labor heartily approved and helped to secure the tremendous expansion of high school and college facilities during the last 15 years. We especially indorse the tendency toward the establishment of junior colleges, the addition to high schools of two years of collegiate



work without tuition, so that young men and women who can not afford to leave home can secure the advantage of additional training.

But your committee believes that the upper years of the elementary school should be reorganized to afford diversified training, so that boys and girls who can not go on to higher schools will receive training specifically designed for their needs, and not be compelled as at present to prepare for a rôle they will never play. These diversified courses should be so flexible that a pupil would be able to transfer from one to another whenever changes in his desires or economic situation made it possible to continue in school for a longer period than he had anticipated. We must not compel a child to pay the penalty throughout life for a mistaken decision made during childhood. Your committee believes that organized labor should demand and help to secure an expansion and diversification of both elementary and secondary education so that a democratic equality of opportunity for preparation for the callings of their choice may be offered the children of our people.

The convention reaffirmed the following principles and policies, which the Buffalo convention declared should govern all Government boards and commissions dealing with questions relating to terms of employment and conditions of labor:

In the composition of boards or commissions which are to consider questions of terms of employment and conditions of labor, it is essential that there should be equality of representation between the employers and the wage earners.

In the event that a wage board or commission is to consist of an unequal number, then a civilian should serve as the odd man. One-half of the remaining number of this body should be the direct representatives of the wage earners, to be nominated by organized labor.

The right to organize is essential to the solution of problems arising between employer and employee. Employers apply this right, but in many instances this right has been denied to wage earners by employers. All agreements formulated by wage boards or commissions should contain a clause announcing that the right to organize is inalienable and that prevention of the exercise of this right by the employer or his representative constitutes a violation of these principles.

The Nation's interest makes it essential that cooperation should exist in the industries. No efficient cooperation can exist except through organization. Cooperation presumes good will, and there can be no good will without recognition of mutual rights. Therefore, the recognition of the employees as a group having common interests is one of the fundamental prerequisites to cooperation.

There can be no true efficiency in production without good will. Good will and cooperation can not exist where the employer exercises autocratic authority in determining the terms of employment and the conditions of labor. The highest efficiency in production can only be secured through the application of the principles of democracy. These are as essential in industry as they are in civil government.

Whenever the employees in a department or an establishment have a common complaint or grievance, it is fundamental that the employer should meet those who may be selected by the workers to represent them.

It is advisable that production should not cease because of an apparent injustice or oversight contained in an award, for it is necessary to the Nation's protection as well as to the welfare of the trade-union movement that there should be no cessation of work except as a last resort.

The convention declared that the industrial unrest in Porto Rico demands a thorough investigation into the conditions of living and

employment of these workers, and recommended that the War Labor Board be requested to make such an investigation and do everything within its power to right the wrongs being perpetrated upon these workers.

On the matter of health insurance the convention refused to approve a resolution (No. 135) declaring in favor of the adoption by the Government of a comprehensive national system of social insurance, but did adopt a resolution (No. 101) instructing the executive council to make an immediate investigation of the question and "point out its dangers or benefits with their recommendations thereon as soon as possible, and \* \* \* to ascertain, if possible, what are the financial resources of the persons and organizations promoting this scheme and what relation they may have with those interests who are opposed to the best interests of the labor movement."

Among the declarations and actions of the convention are the following:

Urging enactment of legislation to abolish private detective agencies because of the menace of their nefarious practices to labor through their spy system.

Urging suffrage for the District of Columbia.

Indorsing proposed legislation for the education of adult illiterates.

Foreign-born workers should be citizens of the United States or Canada or have declared in accordance with the law their intentions of becoming citizens, before being admitted into membership into organizations affiliated with the American Federation of Labor.

Opposing proposed eight-hour law for Government employees.

For the continuance of cooperation to secure enactment of legislation granting Government employees right of hearing and appeal from the judgment of officials in cases involving demotion or dismissal.

Directing continuance of effort to secure the enactment of minimum-wage legislation for Government employees and a suitable retirement law for superannuated Government employees.

That the right to organize and of affiliation with the American Federation of Labor shall be held inviolate under Government ownership.

Urging proper guaranties for the protection of labor in "idlers" or "must work" laws.

Recommending that the Department of Justice be called upon to make an investigation of the so-called liberty defense union.

To request the War Trade Board of the United States and the War Trade Board of Canada to prohibit all exports of news-print paper for the duration of the war to other than allied nations until the home market is fully supplied.

Recommending the creation of a commission to consider plan for the readjustment of labor after the war.

Protesting against profiteering rent raising.

Indorsing and pledging assistance to secure woman suffrage.

Urging admission of women workers to membership in affiliated unions of the crafts in which they are employed to take the places of men called away by the war and declaring for the principle of equal pay for equal work.

To endeavor to secure extension of provisions to cover all workmen in all industries coming under workmen's compensation law.

Directing the executive council to watch wheat price legislation and to favor as low a price as possible consistent with the interests of the farmers.

Directing the executive council to prevent the enactment of any law that would permit the entry of Chinese coolie labor into this country.

Indorsing the Government's action in taking control of the railroads and advocating the taking over by the Government of the Western Union Telegraph Co. and the Postal Telegraph Cable Co. during the period of the war and as long thereafter as may be deemed advisable.

Condemning the decision of the United States Supreme Court which declared the Federal child labor law unconstitutional, and directing that effort be made to have Congress enact a law that will abolish child labor.

Directing the executive council to have a study made of the successive steps which have been taken by the Federal and Supreme Courts through which without constitutional authority they have invaded the rights and prerogatives of the legislative branch of the Government and that legal counsel be consulted so that an adequate measure may be prepared and introduced in Congress which will prevent such invasion.

In the election of officers two changes occurred, Jacob Fischer succeeding James O'Connell and Thomas A. Rickert succeeding H. B. Perham. The following are the officers who were elected: President, Samuel Gompers; first vice president, James Duncan; second vice president, Joseph F. Valentine; third vice president, John R. Alpine; fourth vice president, Frank Duffy; fifth vice president, William Green; sixth vice president, W. D. Mahon; seventh vice president, T. A. Rickert; eighth vice president, Jacob Fischer; treasurer, Daniel J. Tobin; secretary, Frank Morrison.

Atlantic City, N. J., was selected as the place for holding the next convention in June, 1919.



## PROPOSED LABOR PARTY IN MINNESOTA.

A resolution passed on the third day (July 17) of the convention of the Minnesota Federation of Labor, attended by some 300 delegates, directed the executive council of that body "to issue a call for a labor political conference" to be held at St. Paul (Minn.) not later than August 24.

This action follows a period of political ferment which has existed in the States of North Dakota and Minnesota since before the entry of the United States into the War. In North Dakota there had been organized the Nonpartisan League representing the interests of farmers principally, but later drawing in the small labor element in a State predominantly agricultural. The activities of this league spread to Minnesota, and in the primary elections of this summer its candidates appeared in the field, supported very considerably by the labor elements in the three principal cities, Minneapolis, St. Paul, and Duluth, and in the towns of the iron ranges of the northern part of the State, St. Louis County principally.

As immediate forerunners of this call for a labor political conference there may be cited (1) the action early in February of this year of the members of the Trades and Labor Assembly of St. Paul in indorsing three labor candidates for members of the city council; (2) the organization of Labor's Municipal Nonpartisan League in Minneapolis, which in April held a convention to indorse candidates for city, county, and State offices; and (3) the holding of a convention in St. Paul, on March 19, by the two bodies mentioned to nominate candidates for State offices.

The resolution to which reference has been made is a step in the direction of completing by official indorsement the loose alliance which has existed between the Nonpartisan League, representing the farming interests of the State, and the organized labor forces of the State.

The preamble clauses to the resolution call attention to the changes which the world war will produce in the old order of industry, the extraordinary industrial war-time demands of the Nation, the unavoidable occurrence of some economic injustice and hardships as a result of the war—but which must be endured as a matter of reason and of patriotism—and the necessity for the working people to take part in shaping and establishing the new industrial conditions. Just as the Government is participating more in the affairs of industry during the war, so it has become imperative, the resolution states, "that the working class exercise a measure of control in government in proportion to their importance in industry." The resolution charges that the present governor of Minnesota "withholds all cooperation with the labor policy of the Federal Government," and cites this as one of

the reasons why labor should participate in the forthcoming election in the State.

The resolution in question is said to have been passed over the recommendation of the committee on resolutions which had disapproved it, and is as follows:<sup>1</sup>

Whereas the industrial and social affairs of all civilized countries have been convulsed by the world war, and the old order of industry has been disrupted and discredited.

2. To meet the extraordinary war-time demands of the Nation new methods and a new system of wealth production have to a great degree superseded the industrial order prevailing before the war.

3. In adapting and coordinating the productive forces of the Nation to meet the abnormal war period and its stupendous needs some injustice and some hardships are unavoidable and must be endured as a matter of reason and patriotism.

4. The orderly processes of industrial development and social progress have been interrupted and the Nation is passing through a critical transition period that will be followed by a new and permanent order. The measure of weal or woe this new order forebodes for the working people will be determined by the degree of intelligent activity exercised by them in shaping and establishing the new industrial conditions.

5. The freedom and the rights of the working people have taken many years and much sacrifice to win, and these may be easily lost by ignorance and neglect. The subtle and insidious forces of avarice and tyranny are ever ready to ride and rob the common people; and in times of national travail and distraction, scheming and sinister minded individuals find conditions particularly favorable to fasten new burdens and new restrictions on those who toil.

6. As industrial development and war necessity have obliged the Government to participate in the affairs of industry in varied forms and in various degrees; and this situation has brought the workers in direct contact with governmental authority, it has become imperative that the working class exercise a measure of control in government in proportion to their importance in industry.

7. Conditions in Minnesota are such as to render action by organized labor imperative. The present governor, J. A. A. Burnquist, while professing loyalty, withholds all cooperation with the labor policy of the Federal Government and ignores or spurns every right of organized labor and the plain people. His autocratic methods are a menace to the peace and safety of the State. His appointees ignore the law and the courts. He must be defeated for reelection if Minnesota and her loyal workers are to do their share in the world crisis which confronts us. Therefore, be it

*Resolved*, That the delegates to the Minnesota State Federation of Labor, in annual convention assembled, do hereby declare that they keenly appreciate the urgent necessity of united, aggressive, and independent political action of the working class in order to intelligently and effectively solve the many momentous labor problems growing out of the present world crisis in government and in industry. That upon organized labor, composed of the most highly skilled and best paid and intelligent element of the working class, rests the obligation of inaugurating such a movement and in promoting the full accomplishment of its purpose; be it further

*Resolved*, That this convention hereby instructs its executive officers to issue a call for a labor political conference to be held at St. Paul not later than August 24, 1918, for the purpose of formulating a plan for a permanent political movement of the working class.

<sup>1</sup> Taken from the Minneapolis Labor Review for July 26, 1918.

In this connection another resolution of a political import introduced and passed before the more far-reaching resolution was acted upon, is reproduced:<sup>1</sup>

Whereas, President Woodrow Wilson says, "the concern of patriotic men is to put our Government again on its right basis by substituting the popular will for the rule of guardians, the processes of common council for those of private arrangement," and it has been generally conceded that he is right and his patriotism is unquestioned, and

Whereas, election statistics will show that a large number of voters do not vote for all the offices on the ticket, and especially the legislature, the seat of law making, about 60 per cent of the total vote generally being cast, and

Whereas the American Federation of Labor has deemed it wise that organized labor should enter politics as an organization, therefore be it

*Resolved*, That we use our best efforts to organize the political activity in all the cities of the State which at this time are not organized, and be it further

*Resolved*, That we shall do our utmost to show the rank and file how to vote intelligently and especially to get our 100 per cent vote for labor's candidates for the legislature.

The convention, called for not later than August 24, met at St. Paul, Minn., on the 25th. It consisted of delegates from unions comprising the membership of the State Federation of Labor, but delegates from the railroad brotherhoods not affiliated with the State federation were admitted after contest. The convention appointed a committee of seven to confer with a similar committee of the Non-partisan League. This joint committee agreed to a candidate for governor who was then accepted by the labor conference.

#### ANNUAL CONFERENCE OF THE BRITISH LABOR PARTY.

The eighteenth annual conference of the Labor Party in England was held in London on June 26, 27, and 28. This was the first conference called under the party's new constitution, and it met for the purpose of electing the new executive and of framing a program of social reconstruction after the war. The debate on the "party truce," however, occupied the attention of the delegates and the public almost to the exclusion of proper consideration of the reconstruction proposals which were the main object of the meeting.

The chairman, Mr. F. W. Purdy (Ship Constructors' and Shipwrights' Association), in the opening address of the convention outlined the party program on reconstruction and sounded the keynote of the conference in his warning that all of their hopes of rebuilding a better social and industrial life depended, whether or not they liked it, on winning the war. He stated that the trade-union and labor movement wanted no inconclusive peace, and that their war aims represent "what we are fighting for, not negotiating for."

<sup>1</sup> Taken from the Minneapolis Labor Review for July 26, 1913.



The report of the executive committee dealt with party organization and finance; with the interallied labor and socialist conference which was held in London in February, 1918, and with matters of national concern which had received special consideration from the committee. Mr. Arthur Henderson, M. P., in moving the adoption of part of the report stated that it was expected that a general election would be held in November, that the Labor Party already had 301 candidates "fixed," including four for university seats, and that inquiries were taking place in 100 other constituencies. As the party in March already held 50 seats, success in these contests would give the Labor Party more members in Parliament than either of the other parties. He appealed for funds to carry on the political work of the party, and said that if there was anything like the response which he looked for, "the position of labor in the British Parliament would be second to none in the world."

#### THE INDUSTRIAL TRUCE.

Soon after the beginning of the war an industrial truce was agreed upon, the understanding between labor and employers being that during the period of the war the regulations in regard to skilled labor, demarcations of work between trades, the employment of nonunion and female labor, and the limitation of overtime should be disregarded, all of these safeguards to be restored to labor at the close of the war. As a result of this truce the number of disputes fell from 836, involving 423,000 workers, in the first seven months of 1914 to 137, affecting only 23,000 in the last five months of that year.

The opening months of 1915, however, found labor profoundly dissatisfied owing to the indifference it was thought the Government was showing to the workers' needs, the unexampled increase in the cost of living, and the feeling that capitalists were profiting from the war and the needs of the nation. To these three things especially may be ascribed that renewal of trade-union movements which has been called the breakdown of the industrial truce.

In December, 1914, employers approached the unions with proposals for overcoming the difficulty, but as the guaranties as to resumption of old conditions of work on the conclusion of the war covered only federated employers the unions would not agree to the employers' demands. Matters were in this unsatisfactory condition when the Government appointed the committee on production on February 4, 1915. Reports were made by this committee, but had little effect on the situation, as on March 17, 1915, representatives of the chief trade-unions in industries producing commodities of war were invited by Mr. Lloyd George, chancellor of the exchequer, and Mr. Runciman, president of the Board of Trade, to confer upon the urgent need of increase in output of munitions of war. The con-

clusions of this conference were finally adopted in the Treasury Agreement of March, 1915, and the Munitions of War Act of 1915, in which a limitation of profits was granted as a counterweight to the relaxation of trade-union rules. In recent months the realization that it would be impossible for the Government to restore conditions in all instances to a prewar basis has affected the attitude of the Labor Party as evidenced by many of the resolutions adopted by the conference.

#### THE "PARTY TRUCE."

The political truce was entered into soon after the outbreak of the war by representatives of the Liberal Party, the Conservative Party, and the Labor Party, in which the agreement was made, in the event of any parliamentary vacancies occurring, that there would be no contested elections; that is, no attempt would be made to wrest the vacant seat from the party which had held it. These by-elections, which may occur at any time, are for the purpose of filling vacancies caused by the death, the elevation to the peerage, the acceptance of an office from the Crown, or the bankruptcy of any member of the House of Commons.

Although there is no constitutionally fixed date for general elections of members of Parliament, which meets once a year, usually from about the middle of February to the end of August, the customary term is seven years. The present Parliament, which was elected in December, 1910, limited its own duration by statute in 1911 to five years and has been kept alive since that time by temporary statutes alone. One more such statute had to be passed in July to keep the House legally in session. A general election is frequently necessitated by the ministry being outvoted in the House on a question of vital importance, but the general election predicted for this fall is expected because of the temporary nature of the present Parliament. As it is confidently expected by the party in power that Mr. Lloyd George will receive the indorsement of the majority, which will mean the resolute maintenance of the war, there is no reason to expect that anything short of serious national disaster will postpone the election.

The party truce which held good, in the first instance, until January 1, 1915, was renewed at various dates until December 31, 1916, when the other political parties endeavored to include conditions in the agreement which the Labor Party executive was not prepared to accept, so that since that time there has been no written agreement. The executive committee has felt throughout the intervening period, however, that the circumstances were such that it was desirable that the spirit of the truce should be observed even in the absence of a written agreement. In spite of this fact some of the labor organizations have, with difficulty, been deterred from taking up

the contests and in two divisions, Keighley and Wansbeck, recently the local organizations decided to contest the elections notwithstanding the recommendation of the executive to the contrary.

The party executive decided early in May, as a result of this feeling on the part of the unions and the fact that a general election was predicted to take place so soon, that the conference should have an opportunity to decide the matter by discussing and voting on the following resolution:

That this conference of the Labor Party accepts the recommendation of the party executive that the existence of the political truce should no longer be recognized.

On June 23, three days before the conference, the eight labor members of the ministry, Messrs. George N. Barnes, John Hodge, George J. Roberts, William Brace, J. R. Clynes, Stephen Walsh, G. J. Wardle, and James Parker, inspired by the feeling that the resolution was an attack upon them, issued a manifesto in which it was stated that while they had entered the Government at a time of great national need, their position had been rendered very difficult by "incessant sniping" through the labor press and by other means on the part of antinational factionalists. Their position at best was a somewhat difficult one even with the general good will which they recognized was usually extended to them by the great mass of the workers. They had found it necessary at times to vote in apparent contradiction to past party resolutions, but the veriest tyro would understand that that is a condition of coalition government at any time and that the other parties as well as themselves had sunk personal and party predilections.

It was stated that during the last three years measures of democratic reform greater than at any previous period in the history of the country have been passed and the measures taken in regard to putting soldiers and sailors and their dependents on a better scale of living than ever before were cited as an example. With Russia as an object lesson they warned the people of the dangers of possible disintegrating influences in the nation and made a plea for unity in the ranks of labor in order to preserve national unity during the war and labor unity after it.

When the resolution for the repudiation of the "party truce" was placed before the conference, Mr. Arthur Henderson, M. P., at once took the platform and made the statement that the resolution had been misunderstood, that if it had been changed to read "that this conference of the labor party accepts the recommendation of the party executive that the existence of the political truce, as regards by-elections, should no longer be recognized," the meaning would have been clear. He further stated that the purpose of the executive in proposing the resolution was to free the party executive from



the embarrassment of trying to keep the agreement when their own people in the constituencies were setting the labor members at defiance, and he denied that the purpose of the resolution was to force these members to leave the Government.

A demand for the ending of the coalition was made by Mr. Robert Smillie, president of the Miners' Federation, who stated that the Labor Party would be far stronger if its members were not in the Government and who, in demanding the abolition of the "party truce," made the statement that it had been entered into without the knowledge of the rank and file of the party.

The resolution to end the "party truce" when put to the vote was carried by a majority of 753,000 votes out of a total of 2,700,000 held by delegates.

Dissatisfaction with the vote on the truce, as well as with the growing strength of the socialists within the British Labor Party, led to a meeting the day following the close of the convention for the purpose of forming a Trade-Union Labor Party, to be composed strictly of members of trade-unions.

The majority of the British Labor Party is composed of regular trade-union members who have largely stood for a resolute maintenance of the war. There are, however, in the British Labor Party, in addition to the nearly two and one-half millions of trade-unionists, about 50,000 socialists—members of the British Socialist Party, the Independent Labor Party, and the Fabian Society. Within these last-named parties, it is charged, there is a certain element of pacifism and defeatism against which this attempt to organize a second labor party is a protest. That the socialist element is gaining power, although numerically so much smaller, is evidenced by the fact that although these parties, under the new constitution, have no separate representation on the executive committee nearly half of the members of the executive committee, as elected by the conference, are members of one of the socialist parties.

The movement to establish a new party was led by Mr. W. J. Davis (Brass Workers' Union), Mr. J. B. Williams (Musicians' Union), and Mr. Havelock Wilson (Seamen's Union), and about 400 delegates attended.

Mr. Williams said that when he was returned to the parliamentary committee of the trades-union congress last September he found a strong feeling of resentment at the way the trade-union movement was being dragged at the heels of a certain section of the Labor Party; that certain members of the Labor Party had started a campaign for a treaty of peace by negotiation, and had never moved a finger to help crush German imperialism. He also charged that the resolution to end the truce was part of the nonunionist and pacifist program and that the real intention underlying it was to force a crisis and to remove

the present coalition Government. In this connection it may be of interest to quote Mr. J. R. Clynes, M. P., food minister in Mr. Lloyd George's cabinet, who received the largest number of votes cast in the conference and therefore can be assumed to have the confidence of the delegates. He did not see any opposition to the Government's war policy in the decision to end the truce, but simply a means for gaining more freedom in domestic affairs. He stated that their interallied program declared "a German victory would be a disaster and defeat for democracy" and working-class opinion would not tolerate any international talks about not waging the war to the end unless the peoples of Germany and Austria signified their agreement to these pronouncements of allied opinion which date back as far as February, 1915. He also stated that because of working and wage conditions, discontent and enmity to the Government have arisen which, however, should not be construed as organized resistance to the continuance of the war; and that the differences within the Labor Party he wished to be regarded as temporary and subordinate, since unity in the Labor Party was essential to unity in the nation.

Mr. Havelock Wilson denied that they were seeking to disrupt the labor movement. A resolution to be presented to the trades-union congress in September was carried, which stated that: "This congress declares in favor of a distinct political labor party for the trade-union movement, based on representation by congress, and instructs the parliamentary committee to take the steps necessary to form a trade-union labor party."

It is evident that as yet the significance of this movement can hardly be estimated, but it is regarded as unlikely that any action will be taken which will result in a definite split in the Labor Party as a whole.

#### THE NEW EXECUTIVE.

The conference of the Labor Party elected the executive committee, consisting of 22 members, for the following year. Under the new constitution this committee is elected in three sections. Thirteen of these members are nominated by national societies, five by local constituency organizations, and four are women. The voting for each section is by the conference as a whole. Mr. J. R. Clynes, M. P., received many thousand more votes than any other member of the committee elected and Mr. J. Ramsay MacDonald, M. P., and Mr. Arthur Henderson, M. P., were elected treasurer and secretary, respectively, without a contest.

#### RESOLUTIONS ON RECONSTRUCTION.

The remainder of the conference was given over to the discussion of the program on reconstruction, which consisted of 26 resolutions based on the report to the Nottingham Conference entitled "Labor

and the New Social Order."<sup>1</sup> The resolutions were carried with only slight changes, mainly in phraseology or on matters of detail.

The program deals with the task of social reconstruction based on cooperation in production and distribution rather than the individualism and profiteering of competitive capitalism of prewar time; and the need for increased production, not necessarily of profit and dividend, but of useful commodities and services.

The necessity for guaranteeing justice to the returned soldiers and sailors upon the conclusion of peace by providing an adequate unemployment benefit to take effect immediately upon the cessation of their pay and separation allowance and by taking measures to insure them suitable situations, care to be taken to prevent unemployment among the civil workers in war trades, are the subjects of two resolutions.

The resolution relating to the restoration of trade-union conditions, in view of the unsatisfactory character of the provisions in the Munitions Act dealing with the subject, calls upon the Government to provide adequate statutory machinery for restoration and suggests that if it is found that some of the rules, conditions, and customs fail to meet the new conditions or are injurious to other sections of workers it is incumbent on the Government, in fulfillment of its pledge, to submit alternative proposals for securing the standard wage and normal day and protecting workers from unemployment.

A 10-years' program of national and local government works such as housing, schools, roads, railways, harbors, afforestation, reclamation, etc., to be arranged in such a way as to relieve any temporary congestion of the labor market by employment on public works, is called for.

Adequate unemployment insurance through State aid to the trade-unions and a State employment benefit for those to whom the union benefits are not available; the complete emancipation of women both with regard to industry on demobilization and with regard to civil rights; the restoration of personal liberty, which calls for the immediate repeal, as soon as the war ends, of the Military Service Acts and those provisions of the Defense of the Realm Acts restricting the freedom of speech, of the press, of travel, and of choice of residence or occupation, are the subjects of three other resolutions.

Political reforms including complete adult suffrage, absolutely equal rights for both sexes, provision for voting by absent electors, and the complete abandonment of the House of Lords are demanded. Any plan for a new second chamber, whether elected or not, which embodies in it any element of heredity or privilege, any ex officio members such as royal dukes, bishops, or law lords, any con-

<sup>1</sup> See "Social reconstruction program of the British Labor Party," MONTHLY REVIEW, April, 1918, pp. 63-88.



trol of the House of Commons by class or party, and any constitution by which the Labor Party or any other party will find itself proportionately less strongly represented in the second chamber than it may be for the time being in the House of Commons itself, is opposed.

To avoid the evils of centralization, constitutional devolution with separate statutory legislative assemblies for Scotland, Wales, and England, home rule for Ireland, and the fullest possible powers to local governing bodies are recommended.

Nationalization of education; a scheme for building the houses so urgently needed; the abolition of the poor law and the development of the municipal health service; temperance reform; Government ownership of public utilities, and coal and iron mines; State life insurance and control of capitalist industry; and conscription of accumulated wealth are all urged.

The final resolution states that in view of the grave importance of the social and industrial reconstruction of Great Britain after the war it is imperative, in the opinion of the conference, that the main outline of policies in all branches should be published in a "Peace book" for public criticism before being finally adopted by the cabinet.

#### M. KERENSKY AND THE FRATERNAL DELEGATES.

A dramatic episode of the first day of the convention was the unheralded appearance of M. Kerensky on the platform. Although there were objections raised to his being heard and demands that if he were allowed to speak Litvinoff, the representative of the Russian Socialists, Republic of Soviets, should also be heard, Mr. Henderson, in a speech in which he appealed to the sense of fair play of the delegates and the right of free speech, reduced the half hundred opponents to five when the question was put to the vote. Kerensky spoke but a couple of minutes on the first day, his "real appearance" being reserved for the next day when the fraternal delegates also spoke. He sketched the condition of Russia at the present time and stated that "the actual results of the acts of Bolshevism, whose strength lay mainly in the disorganization of the worn-out masses of soldiers, was merely to be the vanguard of the triumphing German imperialism. At the present time it is equally advantageous to German imperialism to create strong reactionary powers in the rich Provinces which can supply raw materials and fuel, and to favor decomposition and anarchy in the very heart of the country. To reach its aim Germany must paralyze the Russian center. That is the true inwardness of the connection between the interior affairs of Russia and this or that result of the world war. Thus, the interests and fate of the Russian people receive a special significance and value for the whole world, and more particularly for the interests of the

world's democracy. It is for you, the oldest and most mature democracies of the whole world, to settle the question whether it is or is not possible to remain a calm spectator of that unheard-of tragedy."

M. Renaudel (French Socialist Party) spoke on the full agreement between the Labor and Socialist parties of the Allied countries on the text of the memorandum of war aims and stated that the peace they wanted was based on right and justice and the removal of oppression in the world.

M. Jean Longuet, of the same party, charged that secret diplomatic understandings and negotiations had been carried on and that it was his conviction that owing to the imperialistic designs of the various governments a great opportunity for making peace under decent conditions had been missed.

M. Emile Vandervelde (Belgian Labor Party) spoke on the international conference. He said that his party was ready to take part in it on the condition that those who had stood by the principles of the Internationale should be there and that those who had betrayed their principles should not be admitted.

M. Branting (International Socialist Bureau), leader of the Social Democratic Party of Sweden, said it was their duty to do all in their power to make the reconstruction of the Internationale possible and that by an earlier reconstruction the world might have avoided the great losses which have taken place since last summer. He spoke also of the fight that the Independent Socialists in Germany are now making and the belief that even among the German Majority Socialists would be found those who repudiate the national form of imperialism prevailing around them at present. He deprecated the "blunder" which had prevented the presence of their comrade, M. Troelstra, the Dutch Socialist leader, who could have told them more of the present movement in the labor world in Germany.

The conclusions reached in the speeches of the fraternal delegates as a whole seem to be that the time for holding an international conference had not arrived, since the German Labor Party had not responded to the interallied memorandum defining the conditions of peace, which was sent to the Socialists of the Central Empires after the February conference, and also since labor at present sees no way to destroy the military power of Germany except through vigorous prosecution of the war. This does not mean that the Labor Party abandons the idea of using diplomatic efforts to further the ends of peace but that at present and until a real expression of opinion can be obtained from Germany the way is not open for negotiations.

**LABOR ORGANIZATION IN CANADA, 1917.**

The Seventh Annual Report on Labor Organization in Canada for the calendar year 1917<sup>1</sup> was recently issued by the Canadian Department of Labor.

The data relative to trade-union membership shows increased strength in practically every direction. Owing to conditions due principally to the war enlistments, the number of local branches and membership unions decreased in 1914 and 1915, the loss amounting to 134 local branches and 32,456 members. During 1916 there was a further loss of 41 local branches, but a recovery of 17,064 members, making the total membership 160,407 at the end of the year. Substantial gains were made in 1917 both in the number of local branches and in membership, so that at the end of that year there were 1,974 local branches having a membership of 204,630, an increase over 1916 of 27.6 per cent in membership and of 7.2 per cent in branches.

In 1914 the building-trades group formed 18.9 per cent, the railroad group 24.9 per cent of the total trades-union membership, while in 1917 these percentages were 10.1 and 28.5, respectively. The mining group increased in importance from 8.4 per cent in 1916 to 10.5 per cent in 1917.

Of the total union membership reported in 1917, 164,896, as against 129,123 in 1916, are given as members of international organizations. Of this total international membership 115,385 are found in 18 organizations, each having a membership of 3,000 or more, and of these 56,040, or 33.4 per cent of all members, belonged to organizations composed of railroad employees. In 1916 the Brotherhood of Railway Trainmen, with 10,684 members, outnumbered any other international organization, but in 1917 the International Brotherhood of Maintenance-of-way Employees headed the list with a reported membership of 16,000 and 155 Canadian local units.

The report states that the most representative labor organization in Canada is the Trades and Labor Congress. Of the international organizations having local branches in Canada 47, embracing 1,073 local branches, with a membership of 70,811 (58,755 in 1916), are affiliated with this congress.

Of the 93 international organizations operating in Canada, having a combined membership of 3,615,633, 20 reported having 149,156 female members, of which 3,320 were in Canada. These figures seem to be verified by reports received from local branches, which show that of a total trade-union membership in Canada of 204,630 only 4,098 are women.

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<sup>1</sup> Seventh Annual Report on Labor Organization in Canada (for the calendar year 1917), published by the Department of Labor, Ottawa, 1918. 227 pp.



Of the 1,974 local branches 1,316 reported on the matter of enlistments since the outbreak of the war, and of this number 324 did not report any enlistment. The total number of enlistments to the end of 1917 was 26,438, with 692 reservists reporting for duty. The trades-unions most affected are building trades, railroad employees, transportation and navigation, and street railway employees.

Data were not obtainable showing the amount of benefits distributed by international organizations among Canadian members. Only expenditures for the whole membership are reported. Of the 93 organizations 78 have benefit features. Of these 56 pay death and strike, 9 unemployment, 20 sick and accident benefits, and 2 old-age pensions.

Local branches of international as well as noninternational unions and independent local bodies made appropriations for benefits to members.

BENEFITS PAID BY INTERNATIONAL ORGANIZATIONS OPERATING IN CANADA  
AND BY NONINTERNATIONAL AND INDEPENDENT LOCAL BODIES, 1917.<sup>1</sup>

Kind of benefits.	International organizations.	Local branches and independent bodies.	
		Amount.	Increase over 1916.
Death.....	\$8,139,809	\$118,373	\$61,727
Sick and accident.....	2,348,589	95,912	50,680
Strike.....	2,197,559	40,527	24,985
Old-age pensions.....	367,755		
Other.....	121,667	58,304	28,904
Total, 1917.....	13,175,379	313,116	64,936
Total, 1916.....	12,502,128	248,180	

<sup>1</sup> In some cases the reports cover the fiscal year.

<sup>2</sup> Decrease.

A combined membership of 3,615,633, 20 reported female members, of which 3,320 were in Canada. seem to be verified by reports received from local br

## STRIKES AND LOCKOUTS.

### STRIKES AND LOCKOUTS IN THE UNITED STATES, APRIL TO JUNE, 1918.

The number of strikes and lockouts occurring in the United States during the first half of the year 1918, according to data compiled from various sources by the Bureau of Labor Statistics, was 1,771. Inasmuch as many reports do not reach the bureau until several months after the strikes occur, the number occurring during the half year was somewhat larger than the above figure would indicate, probably in excess of 1,800. Complete data relative to these strikes have not been received by the bureau, and it has not been possible as yet to verify what have been received. The figures in the following tables should not, therefore, be accepted as final.

#### NUMBER OF STRIKES AND LOCKOUTS BEGINNING IN EACH MONTH, JANUARY TO JUNE, INCLUSIVE, 1916 AND 1918.

Kind of dispute.	January.	February.	March.	April.	May.	June.	Month not stated.	Total.
<b>Strikes:</b>								
1916.....	143	161	220	317	493	258	160	1,752
1918.....	182	213	296	321	391	253	64	1,720
<b>Lockouts:</b>								
1916.....	7	5	8	14	15	16	-----	65
1918.....	8	7	8	11	5	7	5	51
<b>Total:</b>								
1916.....	150	166	228	331	508	274	160	1,817
1918.....	190	220	304	332	396	260	69	1,771

In this table the figures on strikes during the first six months of the year 1918 are compared with similar figures for the year 1916, the last calendar year of peace in this country. It will be noted that the number of strikes in the second quarter of each year was considerably greater than in the first quarter of the same year. There is nothing unusual about this, for more strikes regularly occur in the month of May than in any other month of the year. It will be observed that the increase in the second quarter of 1918 over the first quarter was less than the corresponding increase in the year 1916. Furthermore the number of strikes for the first six months of the year 1918 was considerably less than it was during the first six months following the entrance of the United States into the war, April 6, 1917, when it was reported to be slightly less than 3,000.

The strikes of the quarter have, however, attracted considerable attention because many of the larger strikes have been in industries

closely connected with war activities. Among the more prominent strikes were those in the shipyards of Norfolk, Detroit, Toledo, and Baltimore; the dry docks of Brooklyn; the textile mills in New Bedford, Providence, and Lawrence; and of the machinists in several munition plants in St. Louis, Utica, Bethlehem, Philadelphia, Bridgeport, Cambridge, and other cities. Large strikes occurred among the building trades in Rochester, Cincinnati, Cleveland, and Oklahoma; of the painters in Boston, Philadelphia, and Chicago; in the railroad shops at Readville, Mass., Alexandria, Va., and Rock Island, Ill.; among the teamsters in Chicago; the laborers in the subways of New York City; the city laborers in Baltimore; the shoe workers in Lynn; waiters and cooks in New York, Philadelphia, and Providence; the bakers in New York City; and the press feeders in Chicago. Several strikes occurred in the mines of Pennsylvania, West Virginia, Ohio, Illinois, and the Southwest, and among the street-car employees in Detroit, Scranton, Rochester, Albany, Troy, and Schenectady, N. Y., Columbus and Dayton, Ohio, and in Detroit, Newark, and East St. Louis.

The data in the following tables relate to the 997 strikes and 26 lockouts reported to have occurred in the three months under consideration. A few strikes that occurred during the quarter but in which the exact month was not stated appear in a group by themselves.

STATES IN WHICH 10 OR MORE STRIKES AND LOCKOUTS WERE REPORTED AS OCCURRING DURING THE SECOND QUARTER OF 1918.

State.	April.		May.		June.		Month not stated.		Total.		Grand total.
	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	
New York.....	62	2	80	2	61	1	1	.....	204	5	269
Massachusetts.....	30	.....	54	.....	29	.....	5	.....	118	.....	118
Illinois.....	26	.....	26	.....	30	2	7	.....	89	2	91
Pennsylvania.....	34	1	35	.....	18	1	1	.....	88	2	90
Ohio.....	24	.....	30	.....	17	.....	1	.....	72	.....	72
New Jersey.....	12	.....	17	.....	13	.....	1	.....	43	.....	43
Connecticut.....	16	1	11	.....	5	.....	.....	.....	32	1	33
Missouri.....	15	.....	9	1	6	.....	1	.....	31	1	32
Michigan.....	8	.....	6	.....	9	.....	2	.....	25	.....	25
Rhode Island.....	5	.....	13	.....	5	.....	.....	.....	23	.....	23
California.....	7	.....	8	.....	5	1	.....	.....	20	1	21
Indiana.....	3	1	9	.....	4	.....	3	1	19	2	21
Wisconsin.....	2	.....	9	.....	6	.....	.....	.....	17	.....	17
Washington.....	5	.....	4	.....	4	1	3	.....	16	1	17
Iowa.....	5	1	8	.....	1	.....	1	.....	15	1	16
Maryland.....	8	.....	4	.....	2	.....	2	.....	15	.....	16
Montana.....	7	1	7	.....	4	.....	.....	.....	15	.....	16
Maine.....	4	.....	4	.....	4	.....	1	.....	14	.....	15
West Virginia.....	5	.....	2	.....	6	.....	.....	.....	14	.....	15
Kansas.....	5	.....	3	.....	3	.....	1	.....	12	.....	12
Minnesota.....	6	.....	4	.....	1	.....	.....	.....	11	.....	11
Oklahoma.....	2	1	5	.....	3	.....	.....	.....	10	1	11
Tennessee.....	2	1	5	.....	1	.....	1	1	9	1	10
22 other States.....	27	2	38	1	19	1	1	1	86	5	91
Total.....	321	11	391	5	253	7	32	3	997	26	1,023



Of these disputes 817 strikes and 17 lockouts occurred east of the Mississippi and north of the Ohio and Potomac Rivers; 153 strikes and 6 lockouts west of the Mississippi; and the remaining 27 strikes and 3 lockouts south of the Ohio and Potomac Rivers and east of the Mississippi.

As to cities, New York City had the largest number of disturbances—142 strikes and 4 lockouts. Other cities in which there were 10 or more were Chicago, with 35 strikes; Philadelphia, with 33 strikes and 1 lockout; Boston and St. Louis, with 24 strikes each; Baltimore, with 13 strikes; Cincinnati, with 12 strikes; and Cleveland and Fall River, with 11 strikes each.

As to sex, the distribution was as follows: Males, 806 strikes and 19 lockouts; females, 55 strikes and 2 lockouts; both sexes, 26 strikes; not reported, 110 strikes and 5 lockouts.

In 566 strikes and 18 lockouts the employees were reported as connected with unions; in 59 strikes they were not so connected; in 6 strikes they were not connected with unions at the time of striking, but were before the strike was finished; and in 366 strikes and 8 lockouts the question of union affiliation was not mentioned.

The industries in which 10 or more strikes or lockouts were reported were as follows:

NUMBER OF STRIKES AND LOCKOUTS IN SPECIFIED INDUSTRIES REPORTED AS OCCURRING DURING THE SECOND QUARTER OF 1918.

Industry or occupation.	April.		May.		June.		Month not stated.		Total.		Grand total.
	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	
Building trades.....	80	5	89	.....	29	1	8	1	206	7	213
Metal trades.....	49	1	38	1	29	.....	11	1	127	3	130
Clothing.....	24	2	38	1	25	1	2	.....	89	4	93
Textiles.....	20	.....	30	1	18	.....	.....	.....	68	1	69
Mining.....	14	1	9	1	16	1	2	.....	41	3	44
Street railways.....	8	.....	16	.....	16	.....	.....	.....	40	.....	40
City employees.....	10	.....	13	.....	9	.....	.....	.....	32	.....	32
Teaming.....	9	.....	16	.....	5	.....	1	.....	31	.....	31
Waiters and cooks.....	7	.....	13	.....	10	.....	.....	.....	30	.....	30
Bakers.....	5	.....	15	.....	6	.....	.....	.....	26	.....	26
Shipbuilding.....	9	.....	4	.....	6	.....	.....	.....	19	.....	19
Longshoremen.....	6	.....	7	.....	6	.....	.....	.....	19	.....	19
Iron and steel industry.....	3	.....	10	.....	5	.....	.....	.....	18	.....	18
Clerks.....	4	.....	1	.....	9	.....	.....	.....	14	.....	14
Railroads.....	5	.....	3	.....	5	.....	.....	.....	13	.....	13
Tobacco.....	2	.....	6	.....	4	.....	.....	.....	12	.....	12
Meat cutters.....	2	.....	2	.....	7	.....	.....	.....	11	.....	11
Breweries.....	3	.....	5	.....	3	.....	.....	.....	11	.....	11
Steamboat men.....	6	.....	2	.....	3	.....	.....	.....	11	.....	11
Telegraph and telephone.....	3	.....	5	.....	3	2	.....	.....	11	2	13
Furniture.....	6	.....	4	.....	.....	.....	.....	.....	10	.....	10
Miscellaneous.....	43	2	62	1	34	2	8	1	147	6	153
Not reported.....	3	.....	3	.....	5	.....	.....	.....	11	.....	11
<b>Total.....</b>	<b>321</b>	<b>11</b>	<b>391</b>	<b>5</b>	<b>253</b>	<b>7</b>	<b>32</b>	<b>3</b>	<b>997</b>	<b>26</b>	<b>1,023</b>

Included in the above are 30 strikes and 1 lockout of carpenters, 38 strikes and 2 lockouts of plumbers, 27 strikes of painters, 32 of sheet-metal workers, 24 of building laborers, 64 of machinists, and

31 of molders; 122 strikes and 1 lockout were in industries directly connected with the War.

In 528 strikes the number of persons was reported to be 287,404, an average of 544 per strike. In 72 strikes, in each of which the number involved was 1,000 or more, the strikers numbered 202,650, thus leaving 84,754 involved in the remaining 456 strikes, or an average of 186 each. By months, the figures are as follows: In April, 82,573 strikers in 170 strikes, average, 486; of whom 29,573 were in 145 strikes less than 1,000 each, averaging 204 per strike. In May, 94,205 strikers in 194 strikes, average 486, of whom 31,555 were in 170 strikes of less than 1,000 persons each, averaging 186 per strike. In June, 108,994 strikers in 145 strikes, averaging 752 each; of whom 21,894 were in 122 strikes of less than 1,000 each, averaging 179 per strike. In 14 lockouts the number reported to have been involved was 2,905, an average of 208 in each.

In 659 strikes and 17 lockouts only one employer was concerned in each disturbance; in 14 strikes and 1 lockout, 2 employers; in 11 strikes, 3 employers; in 5 strikes, 4 employers; in 85 strikes, 5 employers; in 205 strikes and 4 lockouts, more than 5; in 18 strikes and 4 lockouts, the number was not reported.

The following table shows the causes of the strikes and lockouts in so far as reported. In about 70 per cent of the disturbances the question of wages or hours was prominent; in about 9 per cent the question of the recognition of the union in some way was involved.

PRINCIPAL CAUSES OF STRIKES AND LOCKOUTS REPORTED AS OCCURRING DURING THE SECOND QUARTER OF 1918.

Cause.	April.		May.		June.		Month not reported.		Total.		Grand total.
	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	Strikes.	Lockouts.	
For increase in wages.....	177	.....	205	.....	118	.....	9	.....	509	.....	509
Because of decrease in wages.....	3	.....	3	.....	1	.....	.....	.....	7	.....	7
Nonpayment of wages.....	1	.....	.....	.....	1	.....	.....	.....	2	.....	2
Back pay wanted.....	.....	.....	3	.....	.....	.....	.....	.....	3	.....	3
For decrease of hours.....	8	.....	5	.....	6	.....	.....	.....	19	.....	19
For increase of wages and decrease of hours.....	21	.....	37	1	16	.....	2	.....	76	1	77
General conditions.....	2	.....	5	.....	5	.....	.....	.....	12	.....	12
Conditions and wages.....	1	.....	11	.....	5	.....	1	.....	18	.....	18
Conditions and hours.....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	1
Conditions, wages, and hours.....	2	.....	1	.....	1	.....	.....	.....	4	.....	4
Recognition of union.....	17	2	11	1	7	2	1	1	36	6	42
Recognition and wages.....	5	2	14	.....	6	.....	1	.....	26	2	28
Recognition and hours.....	1	.....	1	.....	.....	.....	.....	.....	2	.....	2
Recognition, wages, and hours.....	6	.....	4	.....	7	.....	.....	.....	17	.....	17
Discharge of objectionable persons.....	7	.....	13	.....	5	.....	.....	.....	25	.....	25
Because of employees discharged.....	6	1	9	.....	8	.....	.....	.....	23	1	24
Nonunion men present.....	10	.....	4	.....	4	.....	.....	.....	18	.....	18
In regard to agreement.....	2	.....	3	.....	1	.....	.....	.....	6	.....	6
For a new agreement.....	2	.....	5	.....	.....	.....	.....	.....	7	.....	7
Discrimination.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Sympathy.....	4	.....	.....	.....	.....	.....	.....	.....	4	.....	4
Jurisdiction.....	1	.....	3	.....	2	.....	.....	.....	6	.....	6
Miscellaneous.....	5	.....	6	1	12	1	1	.....	24	2	26
Not reported.....	39	6	48	2	48	4	17	2	152	14	166
Total.....	321	11	391	5	253	7	32	3	997	26	1,023

It is frequently difficult to state exactly when a strike terminates, since many strikes end without any formal vote on the part of the strikers. The following figures relate to such strikes and lockouts as the bureau has been advised actually terminated during the quarter, 554 in number: 159 strikes and 3 lockouts in April, 199 strikes and 5 lockouts in May, 180 strikes and 5 lockouts in June, and 2 strikes in a month not stated. Disputes terminating in favor of the employees numbered 161 strikes and 5 lockouts: 49 strikes and 1 lockout in April, 66 strikes and 2 lockouts in May, 43 strikes and 2 lockouts in June, and 3 strikes in month not reported. Disputes terminating in favor of the employers numbered 56 strikes and 1 lockout: 13 strikes in April, 20 strikes in May, and 23 strikes and 1 lockout in June. Disputes compromised numbered 189 strikes and 5 lockouts: 54 strikes and 1 lockout in April, 67 strikes and 3 lockouts in May, and 68 strikes and 1 lockout in June. In 73 strikes the employees returned to work under promise of the employer to arbitrate the matter in dispute—19 in April, 27 in May, and 27 in June; 27 of these were referred to the War Labor Board for settlement. In the remaining 62 strikes and 2 lockouts the result was not reported. In 25 strikes union officials repudiated the action of the men in striking.

The duration of 467 strikes and 7 lockouts was given as follows:

DURATION OF STRIKES REPORTED AS OCCURRING DURING THE SECOND QUARTER OF 1918.

Period.	April.		May.		June.		Total.		Grand total.
	Strikes.	Lock-outs.	Strikes.	Lock-outs.	Strikes.	Lock-outs.	Strikes.	Lock-outs.	
1 day or less.....	15	1	16	.....	16	.....	47	1	48
2 days.....	14	.....	13	.....	13	1	45	1	46
3 days.....	18	.....	29	.....	19	.....	66	.....	66
4 days.....	7	.....	10	.....	12	.....	29	.....	29
5 to 7 days.....	31	.....	30	.....	27	.....	88	.....	88
1 to 2 weeks.....	18	.....	32	.....	28	.....	78	.....	78
2 to 3 weeks.....	11	.....	16	1	10	.....	37	1	38
3 to 4 weeks.....	5	.....	6	2	3	.....	14	2	16
1 to 3 months.....	14	.....	21	.....	21	2	56	2	58
Over 3 months.....	1	.....	5	.....	1	.....	7	.....	7
Total.....	134	1	183	3	150	3	467	7	474

The number of days lost in strikes ending during the quarter was 6,659. The average duration of these strikes was about 14 days. The average duration of strikes lasting less than 90 days was 12 days. By months the record is as follows: April, days lost, 1,593, average 12 days, 11 days in cases of strikes lasting less than 90 days; May, days lost, 3,058, average 17 days, 12 days in cases of strikes lasting less than 90 days; June, days lost, 2,008, average 13 days, 12 days in cases of strikes lasting less than 90 days. In the 7 lockouts 168 days were lost.



## CONCILIATION AND ARBITRATION.

### CONCILIATION WORK OF THE DEPARTMENT OF LABOR, JULY 17 TO AUGUST 16, 1918.

Under the organic act of the department, which gives the Secretary of Labor the authority to mediate in labor disputes through the appointment, in his discretion, of commissioners of conciliation, the Secretary, from July 17, 1918, to August 16, 1918, exercised his good offices in 254 labor disputes. The companies involved, the number of employees affected, and the results secured, so far as information is available, were as follows:

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JULY 17 TO AUG. 15, 1918.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, Hill Pump Co., Anderson, Ind.			Pending.
Threatened strike, Pittsburgh & West Virginia Ry. Co., Pittsburgh, Pa.	1	20	Adjusted.
Strike, Georgia Railway & Power Co., Atlanta, Ga.	1,200	500	Do.
Controversy, International Engineering Works, Framingham, Mass.			Pending.
Threatened strike, Atlanta & St. Andrews Bay Ry., Dothan, Ala.	200		Unable to adjust.
Strike, blacksmiths, American Locomotive Co., Schenectady, N. Y., Paterson, N. J., and Richmond, Va.	320	7,000	Adjusted.
Strike, foundry employees, Elevator Supplies Co., Hoboken, N. J.	28	150	Do.
Strike, Portland Cement Co., Colton, Cal.	125	100	Do.
Threatened strike, machinists, Washington, Pa.	200		Pending.
Controversy, Marks Mfg. Co., Indiana Harbor, Ind.			Do.
Controversy, manufacturers of ice cream and the drivers, Chicago, Ill.	250	400	Adjusted.
Strike, Pierce, Fordyce Oil Refinery, Fort Worth, Tex.	55	10	Do.
Controversy, Willys-Overland Co. and die sinkers, die and tool makers, machinists, machine operators, and tool grinders, Toledo, Ohio.	5,000	9,000	Do.
Strike, Springfield Street Ry. Co., Springfield, Ill.			Referred to National War Labor Board.
Controversy, Electric Auto-Lite Corporation and die sinkers, die and tool makers, machinists, etc., Toledo, Ohio.	2,100		Adjusted.
Controversy, Saxon Mfg. Co. and machinists, etc., Toledo, Ohio.	100		Do.
Threatened strike, laborers, Pier 18 of Central R. R. of New Jersey, Jersey City, N. J.			Pending.
Strike, shopmen, Nevada Northern Ry., East Ely, Nev.	132	250	Adjusted.
Strike, L. Q. White Shoe Co. and upper leather cutters, Bridgewater, Mass.			Referred to National War Labor Board.
Strike, garment workers, Los Angeles, Cal.	300	500	Adjusted.
Strike, Lombard Iron Works, Augusta, Ga.	40		Nearly all men have left Augusta and are employed elsewhere.
Controversy, Folsom Development Co., Folsom, Pa.			Pending.
Controversy, Monongahela Valley Traction Co. and street car employees, Fairmont, W. Va.	300	60	Adjusted.
Controversy, Fairmont Mining Machine Co. and electricians and helpers, Fairmont, W. Va.	12	10,000	Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JULY 17 TO AUG. 15, 1913—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Strike, cloak, suit, and skirt workers, Cleveland, Ohio.....	4,500	1,000	Referred to National War Labor Board.
Threatened strike, firemen, Scranton, Pa.....	188		Firemen agreed to arbitrate whole question. Findings agreed to.
Controversy, firemen, Pittsburgh, Pa.....	700		Referred to National War Labor Board.
Strike, machinists, Evansville Brewing Association, Evansville, Ind.....	3	250	Adjusted.
Strike, electrical workers, contract shops, Milwaukee, Wis.....	90		Do.
Controversy, United Breweries and Electrical Workers, Milwaukee, Wis.....	14	3,000	Do.
Strike, Cleveland Welding Manufacturing Co., Cleveland, Ohio.....	50		Pending.
Controversy, Alberger Pump & Condenser Co., Newburgh, N. Y.....	400		Adjusted.
Controversy, building laborers, Chas. Weis Sons, Des Moines, Iowa.....	200		Adjusted prior to commissioner's arrival.
Strike, Wabash, Chester & Western R. R. Co., Chester, Ill.....	9	2,000	Adjusted.
Strike, neckwear industry, New York.....			Pending.
Strike, Eastern Steel Co., Pottsville, Pa.....	180		Adjusted prior to commissioner's arrival.
Strike, Raymond Concrete Pile Co., Sparrows Point, Md.....	100	350	Do.
Controversy, Nevada Consolidated Copper Co., Ruth and McGill, Nev.....	3,000		Pending.
Threatened strike, pattern makers, Detroit, Mich., and vicinity.....	800		Referred to the National War Labor Board.
Controversy, West Boylston Manufacturing Co., East Hampton, Mass.....			Matter being handled by Massachusetts State Board.
Controversy, Western Allegheny R. R. Co., Kaylor, Pa.....			Adjusted.
Controversy, McClintick, Marshall Co., Rankin, Pa.....	750		Pending.
Strike, gold miners, Nome, Alaska.....			Do.
Controversy, Ogden Packing Provision Co., Ogden, Utah.....	250		Adjusted.
Controversy, Utah-Idaho Ry. Co., Eureka, Utah.....	45	70	Pending.
Controversy, Utah Copper Co., Bingham, Utah.....	2,000	6,000	Referred to the National War Labor Board.
Threatened strike, hotel and restaurant employees, Chicago, Ill.....	4,200	3,500	Do.
Controversy, Illinois Wrecking & Lumber Co., Chicago, Ill.....			Pending.
Strike, General Manufacturing Co., Philadelphia, Pa.....	100	35	Adjusted.
Controversy, Clarkson Coal & Dock Co., Ashland, Wis.....			Pending.
Controversy, United States Gypsum Co., Blue Rapids, Kans.....	50		Adjusted.
Controversy, pattern makers, Long & Alstatter Co., Hamilton, Ohio.....			All old employees working elsewhere. Company will agree to pay new pattern makers 75 cents per hour, but will not reemploy any of the men who quit.
Strike, sheet-metal workers, Asheville, N. C.....	18	1,000	Adjusted.
Strike, Woonsocket Rubber Co., Millville, Mass.....			Pending.
Controversy, pattern makers, Providence, R. I.....			Do.
Controversy, machinists, American-British Manufacturing Co., Providence, R. I.....			Do.
Controversy, Victoria Mills, Thornton, R. I.....			Do.
Strike, miners, Metropolitan Paving Brick Co., Minerva, Ohio.....	30	80	Adjusted.
Controversy, Brooklyn Rapid Transit Co. and locomotive engineers, Brooklyn, N. Y.....			Referred to the National War Labor Board.
Controversy, Northwestern Electric Equipment Co. and electrical workers, St. Paul, Minn.....	10	350	Adjusted.
Threatened strike, painters, Camp Hancock, Augusta, Ga.....			Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JULY 17 TO AUG. 15, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, Monongahela Traction Co. and street car employees, Parkersburg, W. Va.	100	(1)	Adjusted.
Controversy, Evansville Tool Works and blacksmiths, Evansville, Ind.	120	.....	Do.
Threatened strike, molders, Oil City Foundry Co., Oil City, Pa.	250	.....	Do.
Controversy, International Jewelry Workers' Union and employers, Attleboro, Mass.	.....	.....	Pending.
Controversy, machinists, Rome, N. Y.	.....	.....	Do.
Strike, machinists, Klieber & Dawson Co., Indianapolis, Ind.	75	105	Referred to the National War Labor Board.
Controversy, machinists, Newark, N. J.	.....	.....	Settled by War Department.
Threatened strike, pattern makers, American Steel Co., Franklin, Pa.	250	.....	Pending.
Controversy, pattern makers, jobbing shops, Toledo, Ohio.	50	.....	Do.
Controversy, pattern makers, Cleveland, Ohio.	.....	.....	Do.
Strike, Edgemore Iron Works, Edgemore, Del.	67	175	Adjusted prior to commissioner's arrival.
Controversy, La Crosse Plow Co. and blacksmiths, La Crosse, Wis.	.....	.....	Pending.
Controversy, Farmer's Cooperative Packing & Produce Co., Sedalia, Mo.	65	30	Adjusted.
Threatened strike, firemen, Wheeling, W. Va.	50	.....	Adjusted prior to commissioner's arrival.
Threatened strike, Carney Coal Co., Carneyville, Wyo.	.....	.....	Adjusted.
Threatened strike, lumber yard, Chas. F. Felin & Co., Philadelphia, Pa.	30	50	Increase of pay settled; time and half for overtime to be taken up by association of lumber dealers, and teamsters and chauffeurs union at later date.
Strike, laborers, Ryan Car Co., Chicago, Ill.	100	50	Adjusted.
Strike, tool makers, American Locomotive Co., Schenectady, N. Y.	35	.....	Do.
Controversy, electrical workers and contractors on Government warehouse, South Schenectady, N. Y.	35	33	Pending.
Strike, oil barrel coopers, Brooklyn and New York City.	100	.....	Wage demands granted and considerable number of men returned to work. Demand for reduction in hours refused. Shops are working; no more men needed.
Controversy, cement finishers and contractor constructing freight house for Cincinnati, Indianapolis & Western R. R. Co., Indianapolis, Ind.	60	.....	Adjusted.
Controversy, boiler makers and shop stewards, Oakland, Cal.	.....	.....	Pending.
Controversy, tin can makers, Chicago, Ill.	.....	.....	Do.
Threatened strike, molders, Elwell Trolley Co., Ann Arbor, Mich.	41	200	Adjusted.
Controversy, Buffalo Structural Steel Co., Buffalo, N. Y.	4	150	Do.
Controversy, boiler makers and helpers, Oil Well Supply Co., Oswego, N. Y.	.....	.....	Pending.
Strike, captains and chief engineers, fire and police boats, Philadelphia, Pa.	20	96	Adjusted.
Controversy, machinists and all labor in machine shops, Madison, Wis.	3,500	4,500	Referred to the National War Labor Board.
Strike, William Davies Packing Co., Union Stockyards, Chicago.	.....	.....	Referred to Judge Aischuler.
Controversy, electrical workers on transports, New York.	.....	.....	Pending.
Threatened strike, Hormel Packing Co., Austin, Minn.	600	.....	Adjusted.
Controversy, machinists, Akron, Ohio.	.....	.....	Pending.

<sup>1</sup> General public.



STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JULY 17 TO AUG. 15, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, machinists, specialists, and helpers, American Locomotive Co., Paterson, N. J.	264	790	Intervention not necessary at this time.
Walkout, laborers, Love Bros. (Inc.), Aurora, Ill.	300	400	Adjusted.
Threatened strike, molders, Muncie Foundry & Machine Co., Muncie, Ind.	400		Do.
Controversy, Triangle Film Co. and theatrical employees, Culver City, Cal.	60	200	Do.
Strike, Squantum Shipyard, Squantum, Mass.			Pending.
Controversy, Fore River Shipyard, cranemen, Quincy, Mass.			Do.
Strike, sheet-metal workers, Norfolk, Va.	40		Adjusted.
Controversy, Dubuque Boat & Boiler Works, Dubuque, Iowa.			Pending.
Controversy, metal workers and metal miners, Butte, Mont.	3,000	20,000	Do.
Controversy, Pittsburgh Filter Mfg. Co., Oil City, Pa.			Adjusted.
Strike, retail clerks, Mobile, Ala.			Pending.
Threatened strike, ice wagon drivers, Los Angeles, Cal.	230	140	Do.
Strike, electrical workers, Georgia Ry. & Power Co., Atlanta, Ga.			Do.
Controversy, Ohio Boxboard Co., engineers, Rittman, Ohio.			Do.
Strike, tool and die makers, Acklin Stamping Co., Toledo, Ohio.	10	165	Adjusted.
Controversy, blacksmiths, helpers, and heater men, King Iron Works, Buffalo, N. Y.	7	350	Do.
Controversy, O'Neil Iron Works, Buffalo, N. Y.			Pending.
Controversy, machinists, Otis Elevator Co., Buffalo, N. Y.			Business agent for blacksmiths reported conditions satisfactory.
Controversy, Ohio Salt Co., engineers, Rittman, Ohio.			Pending.
Strike, Great Northern Ore Docks, Superior, Wis.	400		Adjusted.
Strike, telephone operators, Southwestern Bell Telephone Co., Kirksville, Mo.	13		Matter of advancing rates referred to public service commission, Jefferson City, Mo.
Strike, pattern makers, Toledo Machine & Tool Co., Toledo, Ohio.	15	600	Adjusted.
Controversy, Spencer Engineering Co., laborers, Toledo, Ohio.	100	300	Do.
Threatened strike, sheet-metal workers, Seattle, Wash.	300		Pending.
Controversy, Cleveland Steel Co. and roll hands and furnace help, Cleveland, Ohio.	33		Adjusted.
Threatened strike, sheet-metal workers, Allentown, Pa.	300	400	Do.
Strike, electrical workers employed by individual contractors, Allentown, Pa.	70		Pending.
Controversy, American Bridge Co., Chicago, Ill.	150		Operating manager of company informed commissioner that trouble at their plant had been settled and all men working.
Threatened strike, teamsters, Yonkers, N. Y.	168	200	Adjusted.
Controversy, pattern makers, Akron, Ohio.			Pending.
Controversy, metal polishers, Zenith Carburetor Co., Detroit, Mich.	10	500	Do.
Controversy, metal polishers, Pelton & Crane Co., Detroit, Mich.	6	80	Do.
Controversy, metal polishers, Fisher Body Corporation, Detroit, Mich.	18	500	Do.
Controversy, molders, Youngstown, Ohio.	200		Referred to National War Labor Board.
Controversy, Magnus Co. and molders, Houston, Tex.			Pending.
Controversy, Great Western Mfg. Co. and metal polishers, La Porte, Ind.			Do.
Controversy, Amalgamated Association of Iron, Steel and Tin Workers (Western Division).			Referred to National War Labor Board.
Controversy, Typographical Union and employers, Helena, Mont.	30		Adjusted.
Controversy, Farmers' Cooperative Co. and butchers, Madison, Wis.			Pending.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JULY 17 TO AUG. 15, 1918—Continued.

Name	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, Faust Lumber Co., Antigo, Wis. ....			Pending.
Controversy, Langlade Lumber Co., Antigo, Wis. ....			Do.
Controversy, Antigo Building Supply Co., Antigo, Wis. ....			Do.
Controversy, Kellogg Lumber Co., Antigo, Wis. ....			Do.
Controversy, Western Steel Car & Foundry Co., Hegewisch, Ill. ....			Do.
Controversy, Venango Mfg. Co. and molders, Franklin, Pa. ....	40	200	Adjusted.
Strike, common laborers, Boston Quartermaster's Terminal, Boston, Mass. ....			Pending.
Threatened strike, steam fitters, Government Hospital, Azalea, N. C. ....			Matter temporarily adjusted by contracting engineer in charge.
Threatened strike, street car employees, Columbus, Ga. ....	69		Pending.
Strike, ice handlers, Madison, Wis. ....			Adjusted.
Strike, teamsters and chauffeurs, Baker, Carver & Morrell, New York City ....	7	80	Adjusted prior to commissioner's arrival.
Controversy, Kingsford Foundry & Machine Shop, machinists, Oswego, N. Y. ....	100		Adjusted.
Strike, Vulcan Iron & Steel Co., Paden City, W. Va. ....	92		Do.
Controversy, molders, W. L. McCulloch Co., Ypsilanti, Mich. ....	8	10	Do.
Controversy, Universal Machine Co. and machinists, Bowling Green, Ohio. ....	1	270	Do.
Threatened strike, waiters, New Washington Hotel, Washington, D. C. ....	70		Do.
Threatened strike, machinists, Maryland Pressed Steel Co., Hagerstown, Md. ....	550	1,000	Pending.
Controversy, electrical workers, Union Electric Light & Power Co., St. Louis, Mo. ....			Do.
Controversy, St. Marys Oil Engine Co., and machinists, St. Charles, Mo. ....	54	225	Do.
Threatened strike, sash and door workers, St. Paul and Minneapolis, Minn. ....			Do.
Threatened strike, machinists, tool makers, die sinkers, etc., Detroit Forging Co., Detroit, Mich. ....	150	50	Adjusted.
Controversy, machinists, Harroun Motor Corporation, Wayne, Mich. ....	4	75	Do.
Controversy, employees, Massasoit Mfg. Co., Fall River, Mass. ....	150	400	Do.
Controversy, Cleveland Dental Supply Co., metal polishers, Cleveland, Ohio. ....			Pending.
Controversy, Aberthaw Construction Co., carpenters and joiners, Sparrows Point, Md. ....			Do.
Strike, D. H. Potts Co., machinists, Lancaster, Pa. ....	50	20	Adjusted.
Strike, pattern makers, Birmingham, Ala. ....	55		Pending.
Strike, molders, Pyramid Gate Bar Co., Yonkers, N. Y. ....	20	45	Adjusted prior to commissioner's arrival.
Strike, plumbers and steam fitters, Nashville Munition Plant, near Nashville, Tenn. ....	700	23,000	Adjusted.
Controversy, carpenters, Port Huron, Mich. ....			Pending.
Controversy, Chicago Surface Lines, cable splicers, Chicago, Ill. ....			Do.
Controversy, Superior Tool & Die Co., machinists, Columbus, Ohio. ....			Adjusted prior to commissioner's arrival.
Strike, Tanning Co., Santa Rosa, Cal. ....	50		Pending.
Threatened strike, Western Pipe & Steel Co., boiler makers and sheet-metal workers, Los Angeles, Cal. ....	140		Adjusted.
Controversy, sheet-metal workers, Ashland Iron & Mining Co., Ashland, Ky. ....	78	2,000	Pending.
Controversy, Studebaker Corporation, South Bend, Ind. ....			Do.
Controversy, Armour & Co., Louisville, Ky. ....	5	100	Adjusted.
Controversy, metal trades, Industrial Works, Bay City, Mich. ....	1,416		Do.
Controversy, steel workers, Indianapolis Light & Heat Co., Indianapolis, Ind. ....	10	100	Do.
Strike, garment workers, Frostburg Shirt Co., Frostburg, Md. ....	100		Do.
Controversy, employees, Federal Mining & Smelting Co., Mullan, Idaho. ....			Pending.
Controversy, Gold Hunter Mining & Smelting Co., Mullan, Idaho. ....			Do.
Controversy, employees working on life preservers, Robinson-Rodgers Co., Newark, N. J. ....	20		Do.

STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JULY 17 TO AUG. 15, 1918—Continued.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Controversy, Advance Rumley Co., boiler makers, Battle Creek, Mich.			Pending.
Controversy, transportation and mechanical crafts, Missouri & Northern Arkansas R. R., Harrison, Ark.			Do.
Lockout, Sandusky Foundry & Machine Co., machinists and helpers, Sandusky, Ohio.	36	65	Adjusted.
Threatened strike, carpenters, Houston, Tex.			Pending.
Strike, linemen, Riggs, Distler & Stringer (Inc.), Government Proving Grounds, Aberdeen, Md.	23	300	Adjusted.
Controversy, Magnolia Petroleum Co., pipe fitting and refining departments, Beaumont, Tex.	1,500		Pending.
Controversy, Gilliam Mfg. Co., molders, Canton, Ohio.			Do.
Controversy, Kinlock Telephone Co., telephone operators, Belleville, Ill.			Do.
Controversy, foundry employees, Belleville, Ill.			Do.
Strike, sheet-metal workers, Oakland, Cal.			Do.
Controversy, De Pere Mfg. Co., De Pere, Wis.			Do.
Strike, tannery workers, Mercersburg Tanning Co., Mercersburg, Pa.	200		Adjusted.
Controversy, Worthington Pump & Machine Co., machinists, Cudahy and Milwaukee, Wis.			Pending.
Strike, California Packing Corporation, cannery employees, Oakland, Cal.	430		Adjusted.
Strike, machinists, Hardscog Little Wonder Drill, Ottumwa, Iowa.	40		Do.
Strike, machinists and helpers, Ottumwa Iron Works, Ottumwa, Iowa.	50		Do.
Threatened strike, New York Central Iron Works, Hagerstown, Md.			Pending.
Threatened strike, Kansas Flour Mills Co., Kansas City, Mo.			Do.
Threatened strike, Elgin and Chicago Railways.			Do.
Controversy, structural iron workers, Kansas City, Mo.			Do.
Controversy, machinists, American Machine & Elevator Co., Louisville, Ky.			Do.
Controversy, electrical workers, Symington-Anderson Co., Rochester, N. Y.			Do.
Controversy, linemen, Rochester Light & Power Co., Rochester, N. Y.			Do.
Walkout, power-house operators, Cleveland Street Ry. Co., Cleveland, Ohio.	20	2,600	Mediation refused by company.
Controversy, engineers, Seneca Wire & Manufacturing Co., Fostoria, Ohio.			Pending.
Lockout, blacksmiths, American Car & Foundry Co., Memphis, Tenn.			Adjusted.
Threatened strike, street car employees, Lima, Ohio.			Pending.
Lockout, Gadsden Car Works, Gadsden, Ala.	400		Do.
Controversy, pattern makers, Putnam Machine Co., Fitchburg, Mass.			Do.
Strike, slaughterhouse men, Swift and Armour plants, Los Angeles, Cal.			Do.
Controversy, United States Gypsum Co., Port Clinton, Ohio.			Do.
Controversy, miners, Silverton, Colo.			Do.
Threatened strike, railway employees, Missouri, Oklahoma & Gulf Ry., Muskogee, Okla.			Do.
Threatened strike, Lake Erie fish dressers, Erie, Pa.	400		Do.
Controversy, electrical workers, Fort Worth Power & Light Co., Fort Worth, Tex.	19	100	Adjusted.
Strike, electrical workers, Phoenix Construction Co., Fort Worth, Tex.	24	217	Do.
Controversy, bridge and structural-iron workers, Riverside Bridge Co., Martins Ferry, Ohio.			Pending.
Controversy, bridge and structural-iron workers, Moss Iron Works, Wheeling, W. Va.			Do.
Strike, telephone girls, Marissa, Ill.			Do.
Controversy, foundry employees, Baker Corporation, Saratoga, N. Y.			Do.
Threatened strike, Swift Spinning Mills, textile workers, Columbus, Ga.	500		Do.
Controversy, metal polishers, Toledo, Ohio:			
Toledo Cooker Co.			Do.
Nagel Electric Co.			Do.
Western Gas Co.			Do.
Gendron Wheel Co.			Do.
Saxon Mfg. Co.			Do.
Toledo Nickel Co.			Do.
Electric Auto-Lite Corporation.			Do.
Toledo Metal Wheel Co.			Do.



STATEMENT SHOWING THE NUMBER OF LABOR DISPUTES HANDLED BY THE DEPARTMENT OF LABOR, THROUGH ITS COMMISSIONERS OF CONCILIATION, JULY 17 TO AUG. 15, 1918—Concluded.

Name.	Workmen affected.		Result.
	Directly.	Indirectly.	
Threatened strike, machinists and toolmakers, Model Gas Engine Co., Peru, Ind.			Pending.
Threatened strike, shipyard timekeepers and clerks, Bethlehem Steel Co., Sparrows Point, Md.	25	100	Referred to Wage Adjustment Board of United States Shipping Board.
Strike, express drivers, American Railway Express Co., Columbus, Ohio.			Pending.
Strike, boiler makers, Milwaukee Dry Docks Co., Milwaukee, Wis.			Do.
Threatened strike, building trades, Moreno Burkham Construction Co., St. Louis, Mo.			Do.
Controversy, electrical workers, Standard Engineering Co., Pittsburgh, Pa.			Do.
Controversy, smelter workers, Blackwell, Okla.			Do.
Walkout, die sinkers and makers, Herbrand Co., Fremont, Ohio.			Do.
Controversy, machinists, Hatcher Tool Co., Detroit, Mich.	30	6	Referred to National War Labor Board.
Strike, spinners and twisters, Crown Worsted Mill, Olneyville, R. I.	52	350	Adjusted.
Controversy, linemen, San Joaquin Light & Power Co., Bakersfield, Cal.	10		Do.
Controversy, miners, A. J. Morgan Coal Co., Bellaire, Ohio.			Pending.
Controversy, common labor, Allis-Chalmers Co., West Allis, Wis.			Do.
Controversy, Falks Mfg. Co., West Allis, Wis.			Do.
Controversy, core makers and molders, Norberg Mfg. Co., Milwaukee, Wis.			Pending.
Strike, structural-iron workers, Symington-Anderson Co., Rochester, N. Y.	21	190	Adjusted.
Controversy, clerks, Kroger Grocery & Baking Co., St. Louis, Mo.			Pending.
Controversy, shipyard, Superior, Wis.			Do.
Strike, Singer Mfg. Co., Cairo, Ill.			Do.
Strike, Delaware Hard Fiber Co., Marshallton, Del.	20		Do.
Controversy, Samuel Cupples Envelope Co., St. Louis, Mo.			Do.
Threatened strike, iron workers, Montour Rolling Mill, Danville, Pa.			Adjusted.
Strike, Saco-Lowell Shops, Newton Upper Falls, Mass.	600		Pending.
Threatened strike, Timken Roller Bearing Works, Canton, Ohio.			Do.
Strike, trainmen, Crucible Steel Co., East Liverpool, Ohio.			Do.
Strike, trainmen, Crucible Steel Co., Midland, Pa.	77		Do.
Controversy, carpenters, Lone Star Shipbuilding Co., Beaumont, Tex.			Do.
Controversy, local union International Association of Fire Fighters and municipal government, Kansas City, Mo.			Do.
Threatened strike, street car men, San Diego, Cal.			Do.
Controversy, Stenotype Co., Indianapolis, Ind.			Do.

## ADJUSTMENTS REPORTED.

Strike, telephone operators, Southwestern Telegraph & Telephone Co., Childress, Tex.  
 Threatened strike, asbestos coverers, Philadelphia, Pa.  
 Threatened strike, chain makers, five States.  
 Controversy, Bass Foundry & Machine Co., Fort Wayne, Ind.  
 Strike, electrical linemen and station employees employed by electric-light companies in eastern Massachusetts.  
 Controversy, Quaker Oats Co., Cedar Rapids, Iowa.  
 Controversy, carpenters, Asheville, N. C.  
 Threatened strike, foundry employees, American Locomotive Co., Schenectady, N. Y.  
 Controversy, Ottumwa Box Car Loader Co., Ottumwa, Iowa.  
 Controversy, Albany Car Wheel Co. and foundry employees, Albany, N. Y.  
 Strike, carpenters, Turner Construction Co., Washington, D. C.  
 Controversy, city of Milwaukee and electrical workers, Milwaukee, Wis.  
 Controversy, steam fitters and plumbers, Standard Engineering Co., Cincinnati, Ohio.  
 Controversy, teamsters, Peoria, Ill.  
 Controversy, tin-plate workers, American Sheet & Tin Plate Co., Elwood, Ind.  
 Controversy, barbers, Atlanta, Ga.  
 Controversy, Sterling Products Co., Evansville, Ind.  
 Threatened strike, machinists, Indianapolis, Ind.  
 Threatened strike, River Terminal Ry. Co., Cleveland, Ohio.

## IMMIGRATION.

### IMMIGRATION IN JUNE, 1918.

The number of immigrant aliens admitted into the United States during the year 1917, as compared with the number admitted during the year 1916, decreased 56.9 per cent. During 1917 the decrease from the preceding month for January, February, and March was 19.9, 22.3, and 19.4 per cent, respectively. For April, however, the number of immigrant aliens admitted showed an increase of 32.3 per cent over the number admitted in March. As compared with April, the figures of May showed a decrease of 48.9 per cent. The figures for June indicated an increase of 5.5 per cent over those for May. During July only 9,367 immigrant aliens were admitted. As compared with the figures for July, those for August showed an increase of 7.3 per cent. In September the number fell to 9,228, or 139 smaller than the number admitted in July. As compared with August, the figures for September showed a decrease of 8.2 per cent. In October there was an increase over the September arrivals of 57, or 0.6 per cent. The admissions in November numbered only 6,446, a decrease of 30.6 per cent from the number admitted in October. In December there was an increase of 8.4 per cent. In January, 1918, there was a decrease of 9 per cent as compared with December, 1917. February, however, showed an increase over January of 16.2 per cent, while March as compared with February showed a decrease of 11.9 per cent. April as compared with March showed an increase of 46.7 per cent, May as compared with April, an increase of 59.5 per cent, while June as compared with May showed a decrease of 6.4 per cent.

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES IN SPECIFIED MONTHS  
1913 TO 1918.

Month.	1913	1914	1915	1916	1917	1918	
						Number.	Per cent increase over preceding month.
January.....	46,441	44,708	15,481	17,293	24,745	6,356	19.0
February.....	50,156	46,873	13,873	24,740	19,238	7,388	16.2
March.....	96,958	92,621	19,263	27,586	15,512	6,510	11.9
April.....	136,371	119,885	24,532	30,590	20,523	9,541	46.7
May.....	137,262	107,796	26,069	31,021	10,487	15,217	59.5
June.....	176,261	71,728	22,598	30,764	11,095	14,247	16.4
July.....	138,244	60,377	21,504	25,035	9,367		
August.....	126,180	37,706	21,949	29,975	10,047		
September.....	136,247	29,143	24,513	36,398	9,228		
October.....	134,440	30,416	25,450	37,056	9,284		
November.....	104,671	26,298	24,545	34,437	6,446		
December.....	95,387	20,944	18,901	30,902	6,987		

<sup>1</sup>Decrease.

Classified by nationality the number of immigrant aliens admitted into the United States during specified periods and in June, 1918, was as follows:

IMMIGRANT ALIENS ADMITTED INTO THE UNITED STATES DURING SPECIFIED PERIODS AND IN JUNE, 1918, BY NATIONALITY.<sup>1</sup>

Nationality.	Year ending June 30—				June, 1918.
	1915	1916	1917	1918	
African (black).....	5,660	4,576	7,971	5,706	462
Armenian.....	932	964	1,221	221	3
Bohemian and Moravian.....	1,651	642	327	74	7
Bulgarian, Serbian, Montenegrin.....	3,506	3,146	1,134	150	20
Chinese.....	2,469	2,239	1,843	1,576	40
Croatian and Slovenian.....	1,942	791	305	33	1
Cuban.....	3,402	3,442	3,428	1,179	102
Dalmatian, Bosnian, Herzegovinian.....	305	114	94	15	3
Dutch and Flemish.....	6,675	6,443	5,393	2,200	207
East Indian.....	82	80	69	61	6
English.....	38,662	36,168	32,246	12,980	1,377
Finnish.....	3,472	5,649	5,900	1,867	123
French.....	12,636	19,518	24,405	6,840	705
German.....	20,729	11,555	9,682	1,992	125
Greek.....	15,187	26,792	25,919	2,602	113
Hebrew.....	26,497	15,108	17,342	3,672	189
Irish.....	23,503	20,636	17,462	4,657	510
Italian (north).....	10,660	4,905	3,796	1,074	89
Italian (south).....	46,557	33,909	35,154	5,234	164
Japanese.....	8,609	8,711	8,925	10,168	727
Korean.....	146	154	194	149	1
Lithuanian.....	2,638	599	479	135	19
Magyar.....	3,604	981	434	32	2
Mexican.....	10,993	17,198	16,438	17,602	6,029
Pacific Islander.....	6	5	10	17	.....
Polish.....	9,065	4,502	3,109	668	44
Portuguese.....	4,376	12,208	10,194	2,319	47
Roumanian.....	1,200	953	522	155	3
Russian.....	4,459	4,858	3,711	1,513	191
Ruthenian (Russniak).....	2,933	1,365	1,211	49	4
Scandinavian.....	24,283	19,172	19,596	8,741	718
Scotch.....	14,310	13,515	13,350	5,204	585
Slovak.....	2,069	577	244	35	5
Spanish.....	5,705	9,269	15,019	7,909	1,254
Spanish-American.....	1,667	1,881	2,587	2,231	237
Syrian.....	1,767	676	976	210	12
Turkish.....	273	216	454	24	5
Welsh.....	1,390	983	793	278	35
West Indian (except Cuban).....	823	948	1,369	732	49
Other peoples.....	1,877	3,388	2,097	314	34
Total.....	326,700	298,826	295,403	110,618	14,247

<sup>1</sup> The total number of departures of emigrant aliens in June was 4,964.



## PUBLICATIONS RELATING TO LABOR.

### OFFICIAL—UNITED STATES.

CALIFORNIA.—*Industrial Accident Commission. California Safety News. Vol. 2, No. 6. San Francisco, June, 1918. 15 pp.*

— *Tentative quarry safety rules. Sacramento, 1918. 46 pp.*

— *Industrial Accident Commission, in cooperation with United States Bureau of Mines. Safety requirements for the storage and use of explosives in mines, quarries, and tunnels. Bulletin No. 8. Sacramento, 1918. 31 pp.*

ILLINOIS (CHICAGO).—*Department of Public Welfare. Social service directory. Second edition. By Valeria D. McDermott and Annie Elizabeth Trotter. Chicago, 1918. 272 pp.*

A handbook for social and civic workers. It includes agencies for social welfare and not maintained for financial profit, and also civic and philanthropic departments of agencies whose major purposes would not come within this scope, located in Chicago or located in the vicinity and caring for residents of Chicago.

INDIANA.—*Yearbook for 1917. Indianapolis, 1918. 883 pp.*

This is the first issue of the Yearbook of the State of Indiana, provision for which was made by the legislature of 1917. It gives "in simplified and brief form a report of the operation of the various offices, departments, and institutions together with such documents, facts, and statistics as make up a general reference work for the State."

MASSACHUSETTS.—*Bureau of Statistics. Labor Bulletin No. 123. (Being Part I of the Annual Report on the Statistics of Labor for 1918.) Seventeenth annual directory of labor organizations in Massachusetts, 1918. Apr. 1, 1918. Boston, 1918. 61 pp.*

MISSOURI (ST. LOUIS).—*Efficiency Board. Description of the duties and classification of positions in the classified service of the City of St. Louis. 1918. [St. Louis, 1918.] 216 pp.*

Includes skilled trades schedule and unskilled labor schedule.

NEW YORK (CITY).—*Commission on Pensions. Report on the pension funds of the City of New York. Part III. A proposed retirement plan to cover all entrants into the municipal service with provision for optional participation by present employees of the City of New York. New York, 1918. 42 pp.*

This volume, which forms Part III of the report, proposes a retirement system, entrance into which is to be compulsory on future employees of the city of New York, and permissible to present employees who waive their rights under existing systems, and briefly outlines, with argument and illustration, the principles upon which it has been constructed. Appendix I contains a draft of a proposed bill for immediate submission to the legislature, embodying the principles discussed, as applied to employees of New York City. Appendix II, not included in this volume, contains actuarial report on the cost of the proposed system.

OHIO.—*Industrial Commission. Department of Investigation and Statistics. Report No. 34. Work of the free labor exchanges of Ohio for the year ending June 30, 1917. Columbus, 1918. 42 pp.*

This report is noted on pages 302 to 304 of this issue of the MONTHLY LABOR REVIEW.

PENNSYLVANIA.—*Department of Labor and Industry. Proposed revision of the power transmission machinery code. 14 pp. Proposed code, head and eye protection. 6 pp. Harrisburg, 1918.*

VERMONT.—*General laws of the State of Vermont relating to labor, 1917. [Montpelier] 1918. 34 pp.*

UNITED STATES.—Congress. House of Representatives. *The United States Food Administration and the United States Fuel Administration. Messages from the President of the United States transmitting reports of the Food Administration and the Fuel Administration for the year 1917. 65th Congress, 2d session. House Document No. 837. Washington, 1918. 174 pp. Chart. Illustrated.*

Annual reports of the Food and Fuel Administrations containing outlines of the plan and scope of the work of the two administrations; copies of proclamations, orders, rules, and regulations; statements of disbursements; and pay rolls for the year; preceded by the messages of the President transmitting the reports to Congress.

— Senate. Federal Trade Commission. *Profiteering. Letter from the chairman of the Federal Trade Commission in response to a Senate resolution of June 10, 1918, transmitting a report containing all facts, figures, data, or information now in possession of the Federal Trade Commission relative to profiteering. 65th Congress, 2d Session. Senate Document No. 248. Washington, 1918. 20 pp.*

— Department of Commerce. Bureau of Foreign and Domestic Commerce. *Foreign commerce and navigation of the United States for the year ending June 30, 1917. Washington, 1918. 956 pp.*

— Department of Labor. Children's Bureau. *Child labor division circular No. 2. Decision of the United States Supreme Court as to the constitutionality of the Federal child labor law of September 1, 1916. Washington, June 30, 1918. 16 pp.*

The text of the decision of the Supreme Court and of the dissenting opinion is preceded by a brief history of the case, prepared by the director of the child labor division of the Children's Bureau.

— Emergency Fleet Corporation. *Restaurant Facilities for Shipyard Workers, by Frederick N. S. Crum. Washington, 1918. 63 pp. Illustrated.*

This report is noted on pages 283 and 284 of this issue of the MONTHLY LABOR REVIEW.

— Employees' Compensation Commission. *Medical officers, hospitals, and physicians available for the treatment of injured civil employees of the United States under the United States employees' compensation act. Washington, June 1, 1918. 8 pp.*

This pamphlet gives a list of private physicians and hospitals designated by the United States Employees' Compensation Commission, and of the hospitals and stations of the United States Public Health Service, where injured employees may secure treatment for injuries which entitle them to treatment under the compensation act.

— [Office of the Attorney General.] *Emergency legislation passed prior to December, 1917, dealing with the control and taking of private property for the public use, benefit, or welfare. Presidential proclamations and executive orders thereunder, to and including January 31, 1918, to which is added a reprint of analogous legislation since 1775. Collected, annotated, and indexed under the direction of the Attorney General by J. Reuben Clark, jr. Washington, 1918. 110, 1150 pp.*

The volume contains an introductory note regarding the extent of the war powers; a summary memorandum covering the general scope, the broader and more general features of the statutes summarized; and two parts, the first of which treats the six principal statutes concerning the war legislation, and the second covering the legislation regarding powers of confiscation, powers of requisition, and powers of regulation.

— Public Health Service. *The present status of our knowledge of fatigue products, by Ernest L. Scott, Associate in Physiology, Columbia University. Reprint No. 465, Public Health Reports, April 26, 1918 (pp. 605-611), Washington, 1918. 8 pp.*

#### OFFICIAL—FOREIGN COUNTRIES.

AUSTRALIA (SOUTH AUSTRALIA).—*Statistical register. 1916-17. Compiled from official records. Adelaide, 1917. 462 pp.*

CANADA.—*Seventh Annual Report on Labor Organization in Canada. (For the calendar year 1917.) Department of Labor. Ottawa, 1918. 227 pp.*

This report is noted on pages 328 and 329 of this issue of the MONTHLY LABOR REVIEW.

— (WINNIPEG, MANITOBA).—*Social Welfare Commission. First annual report. May, 1917, to April, 1918. [Winnipeg], Olafson Block, 175 King Street, 1918. 19 pp.*

CANADA (NOVA SCOTIA).—*Department of Public Works and Mines. Annual report on the mines, 1917. By the commissioner of public works and mines. Halifax, 1918. 79 pp.*

The report shows that during the year ending September 30, 1917, the coal mines of Nova Scotia employed an average daily force of 1,988 surface workers, 5,611 underground, 2,742 in cutting coal, and 2,142 in transportation, commercial upkeep, and repairs, making a total of 12,483 workmen; that the total colliery days were 3,029,177, and the total days 3,577,408. There were 22 fatal accidents during the year, or 87 if the number of men killed in an explosion which occurred in a certain mine on July 25, 1917, are included. The fatality rate, based upon the 22 fatal accidents, was 2.13 per 1,000 men employed.

— (ONTARIO).—*Workmen's Compensation Board. Report for 1917. Printed by order of the Legislative Assembly of Ontario. Toronto, 1918. 69 pp.*

This report is noted on pages 263 to 265 of this issue of the MONTHLY LABOR REVIEW.

DENMARK.—*Den Faste Voldgiftsrets Kendelser, 1916, 1917. Udgivne ved Rettens Foranstaltning. 2 volumes. Copenhagen, 1917, 1918.*

These volumes are the case reports for 1916 and 1917 of the permanent industrial arbitration court of Denmark, created by law in 1910 to settle certain classes of disputes arising between members of the general employers' federation and the general trade-union federation. (See MONTHLY REVIEW for August, 1915, pp. 14, 15.) The volumes contain no statistical summary of the cases tried. It appears, however, that 23 cases were disposed of in 1916 and 33 in 1917. Altogether the court has disposed of 220 cases since its organization in 1910.

FRANCE.—*Commission Supérieure des Caisses Nationales d'Assurances en Cas de Dérèglements et en Cas d'Accidents. Rapport à M. le Président de la République sur Les opérations et la situation de ces deux caisses. Année 1915. Paris, 1917. 83 pp.*

Report of the Superior Commission of National Death and Accident Insurance Funds, on the operation and situation of the two funds during the year 1915.

— *Préfecture de la Seine. Direction des Affaires Municipales. Service de la Statistique Municipale. Annuaire statistique de la Ville de Paris. XXXIV<sup>e</sup> année—1913, et principaux renseignements pour 1914. Paris, Masson et Cie., 1917. 735 pp. Price, 6 fr.*

Statistical annual of the city of Paris for the year 1913, with principal returns for 1914.

GREAT BRITAIN.—*Board of Agriculture and Fisheries. Annual report of proceedings under the Small Holding Colonies Act, 1916, for the year 1917. London, 1918. 6 pp.*

See pages 88 and 89 for review of this report.

— *Board of Education. Circulars. London. Memorandum on the teaching of engineering in evening technical schools. Circular 894, 1915. 59 pp. Price, 6d. Memorandum on the teaching of coal mining in part-time schools. Circular 953. 1916. 28 pp. Price, 4d. Memorandum on the teaching of building in evening technical schools. Circular 978. 1916. 49 pp. Price, 6d. net. Memorandum on the teaching of cotton spinning and cotton manufacture in evening technical schools. Circular 1016. 1917. 43 pp. Price, 6d. net.*

— *Board of Trade. Departmental Committee on the Textile Trades. Report, to consider the position of the textile trades after the War. Cd. 9070. London, 1918. 130 pp. Price, 1s. 3d. net.*

— *Memorandum with respect to the reorganization of the Board of Trade. Cd. 8912. London, 1918. 7 pp. Price, 1d. net.*

— *Statistical abstract for the several British self-governing dominions, colonies, possessions, and protectorates in each year from 1901 to 1915. Fifty-third number. London, 1918. 473 pp. Price, 2s. net.*

— *[Factory Inspector's Office] Annual report of the chief inspector of factories and workshops for the year 1917. Cd. 9108. London, 1918. 24 pp. Price, 3d. net.*

An excerpt from this report appears on pages 236 to 242 of this issue of the MONTHLY LABOR REVIEW.



GREAT BRITAIN.—*Local Government Board. The housing of the working classes acts, 1890 to 1909. Memorandum for the use of local authorities with respect to the provision and arrangement of houses for the working classes.* London, 1917. 18 pp. 12 plates.

In this memorandum the Local Government Board has summarized its views upon certain points in regard to the provision and arrangement of houses for the working classes. It supersedes the board's memorandum of March 25, 1913, on the same subject. There are 12 plans designed to meet different requirements and situations.

— *Metropolitan police. Accounts showing the sums received and expended for the purposes of the metropolitan police and police pension fund, between the 1st of April, 1917, and the 31st of March, 1918.* London, 1918. 13 pp. Price, 2d. net.

— *Ministry of Food. Statistical Branch. Summary of statutory rules and orders issued by the food controller.* [London.] 3 pamphlets: *Between January 1, 1918, and March 31, 1918.* 30 pp. *April, 1918,* 12 pp. *May, 1918,* 18 pp.

— *Ministry of Munitions. Health of Munition Workers Committee. Final Report. Industrial health and efficiency.* London, 1918. 182 pp. Illustrated. Cd. 9065.

This report is noted on pages 40 to 53 of this issue of the MONTHLY LABOR REVIEW.

— *Ministry of National Service. Civil Staff Employed by Government Departments.* London, 1918. 6 pp.

This report is noted on pages 66 and 67 of this issue of the MONTHLY LABOR REVIEW.

— *Ministry of Reconstruction. First report of the committee dealing with the law and practice relating to the acquisition and valuation of land for public purposes.* London [1918]. 57 pp.

— *Industrial Councils and Trade Boards. Memorandum by the Minister of Reconstruction and the Minister of Labor.* Cd. 9085. London, 1918. 4 pp. Price, 1d. net.

This report is published in full on pages 58 to 64 of this issue of the MONTHLY LABOR REVIEW.

— *Housing in England and Wales. Memorandum by the advisory housing panel on the emergency problem.* London, 1918. 15 pp.

The advisory panel made its report to the minister of reconstruction in October, 1917. This report was printed in June, 1918, at the request of Parliament. The housing problem is treated here only in its immediate emergency aspect after the war. A shortage of 250,000 houses is estimated at the end of 1917, and an additional shortage of 75,000 for each year the war continues. In proposing to meet the shortage the housing panel rejects all schemes calling for a grant in aid either wholly or partially to meet the cost of construction and proposes direct State construction with ownership for a limited period of years after the war—five years, for example, being suggested. The local authority is to act as agent of the State and is to become owner of the property at the end of the period fixed. Rents are to provide fair interest, and for sinking fund, etc., the State to write off additional war costs at the end of the transitional period. It is estimated that the provision of 300,000 houses would involve an expenditure of £100,000,000 (\$486,650,000).

— *Reconstruction Committee. Agricultural Policy Subcommittee appointed in August, 1916, to consider and report upon the methods of effecting an increase in the home-grown food supplies, having regard to the need of such increase in the interests of national security. Report, together with reports by Sir Matthew G. Wallace, Cd. 9079; and summaries of evidence, Cd. 9080.* London, 1918. 2 vols., 136 pp. and 129 pp. Price, 1s. 3d. net each.

— *Reports of the committee appointed by the attorney general to consider the legal interpretation of the term "period of the war."* London, 1918. 50 pp. Cd. 9100. Price, 6d. net.

Embraces three interim reports and a final report, together with a summary of emergency legislation arising from the war. The first interim report, dated January 12, 1918, deals with the meaning of the phrase "termination of the present war" and other similar phrases used in emergency acts and rules, regulations, and orders made thereunder, and also in government and private contracts, awards, and similar instru-

ments. The second report, dated March 26, 1918, discusses the effect of the termination of the war upon the defense of the realm acts and the regulations made thereunder. The third report, dated March 27, 1918, is concerned with the effect of the war upon contracts of apprenticeship, and similar arrangements for learning trades or professions. The final report deals with emergency acts, orders, and regulations in detail. The committee defines the phrase "termination of the present war" as meaning the date at which the ratifications of the treaty of peace are exchanged or deposited.

GREAT BRITAIN.—*National Health Insurance. Medical Research Committee. An inquiry into the composition of dietaries, with special reference to the dietaries of munition workers.* London, 1918. 48 pp.

Contains a brief résumé of the modern developments of nutritional physiology, summing up the results which had been reached before the outbreak of the war; some statistics concerning working-class dietaries before and during the war, the latter having been collected from hostels and canteens serving munition workers; a brief discussion of the dietaries of German workers since the war began; and an appendix discussion of the food, cooking, and service in English hostels and canteens for munition workers. The conclusion is reached that in 1917 the munition workers were sufficiently nourished, although war conditions had necessitated changes in the dietaries which were likely to become progressively greater. A conclusion of general interest is the following:

The data, as a whole, appear to us to show that working-class consumption in this country since the war has not changed, so far as total energy value is concerned, and is not extravagantly high in comparison with that of other working-class populations. This is a conclusion of some importance, and depends upon a really considerable bulk of evidence. We do not think, therefore, that the charges brought by some against the working classes of having yielded to the temptation to consume more food than is necessary under the stimulus of high wages have any wide basis of fact.

— — — *A report on the causes of wastage of labor in munitions factories employing women.* Special report series, No. 16. London, 1918. 76 pp. Price, 1s. 6d. net.

— *War Cabinet. Report for the year 1917.* Cd. 9005. London, 1918. 236 pp. Charts. Price, 1s. net.

— (SCOTLAND).—*Board of Agriculture. Sixth report.* Edinburgh, 1918. lxi, 10 pp.

Contains, among other matter of a purely agricultural nature, data concerning the taking up of small holdings and the provision of such for discharged soldiers and sailors.

MEXICO.—*Departamento de Trabajo. Boletín del Trabajo.* Vol. 1. No. 1. January, 1918.

This is the first issue of the official organ of the Mexican Department of Labor. The foreword announces that the Bulletin of Labor will be devoted to the publication of the more important and recent social reforms adopted in other countries as well as to statistical data and results of investigations relative to Mexican industries. Studies, opinions, and advice of recognized authorities and of common laborers as well, and analyses of conferences relative to labor, will be given from time to time. The most important general heads under which the subjects are discussed in this issue are: Accidents to labor, Women and child labor, Industrial hygiene, Weekly rest, Statistics, etc. Among the statistical data is a table showing the number, causes, and results of strikes in Vera Cruz in 1917. Thirteen strikes are listed, involving 9,069 workers. All but four of the strikes were for increases in wages and in every case the result was favorable to the employees. The bulletin contains a directory of trade-unions in Mexico.

NEW ZEALAND.—*Census and Statistics Office. Official yearbook, 1917. Twenty-sixth year of issue.* Wellington, 1917. 828 pp. Map.

Contains annual statistics to the end of the calendar year 1916 or the financial year 1916-17, supplemented by a number of diagrams. Of interest to labor are tables of mining accidents, sections devoted to industrial matters, pensions, prices and

wages, and various items. Statistics of factories show that the number of registered factories in the Dominion on March 31, 1917, was 12,455, the number of employees being 78,188. These figures show a decrease from those for the previous year amounting to 759 in the number of factories and 4,823 in the number of workmen. There were 1,171 accidents in factories in the year 1916-17, of which 938 were slight, 144 moderate, 84 serious, and 5 fatal; as compared with a total of 1,065 during the previous year, of which 837 were slight, 160 moderate, 65 serious, and 3 fatal. This increase in the number of accidents in 1916-17 is attributed to the greater number of inexperienced hands employed.

NEW ZEALAND.—*Results of a census of the Dominion of New Zealand taken for the night of the 15th October, 1916. Part I.—Population. Wellington, 1918. 77 pp.*

SWEDEN.—*Pensionsstyrelsen år 1916. Stockholm, 1918. 73 pp. Sveriges officiella statistik.*

The report contains a review for the year 1916 of the working of the general old-age pension law of June 30, 1913, which went into force January 1, 1914. Under this law each Swede, male and female, when not otherwise provided, is required to be insured and becomes entitled to a pension if permanently incapacitated for work or after the age of 67 years, from a fund maintained by the payment of annual premiums and State subventions. According to the register kept of each person between the ages of 15 and 66 years, by the direction of the general old-age pension law, the number registered in 1915 was about 3,458,600, of whom 1,674,900 were men and 1,783,700 women. Nearly 204,300 of these were exempted from the payment of premiums, and of the remaining 3,254,300, 907,300 were inhabitants of cities and 2,347,000 of the country. Corresponding figures for 1916 were not completed.

— *Riksförsäkringsanstalten år 1916. Stockholm, 1918. 194 pp. Sveriges officiella statistik.*

Report of the operations of the State accident insurance office for 1916 and a statistical review of insurances written in 1914. During the year 1916 fully 13,257 workmen were victims of accidents. Sickness indemnities were paid to 12,128 workmen; life annuities to 535 invalids; and in the cases of 88 deaths, life annuities to 47 widows and 67 children. The total number of life annuities running at the end of 1916 had risen to 3,785.

— *Socialstyrelsen. Arbetartillgång, Arbetstid och Arbetslön inom Sveriges Jordbruk år 1916. Stockholm, 1918. 49 pp. (Sveriges officiella statistik. Socialstatistik.)*

Gives returns of an official investigation into the volume of labor, the length of the working-day, and wages in agriculture in Sweden in 1916, based upon questionnaires filled by the presidents of communal assemblies in 2,179 rural communes, which represent 93.3 per cent of the rural communes included in the investigation. In 58 of the communes replying to the questionnaires—that is, in 2.7 per cent—the proportion of labor was good; in 966, or 44.3 per cent, it was sufficient; and in 1,125, or 51.6 per cent, insufficient; 30 communes, or 1.4 per cent, not being able to give definite answers. By comparison with the preceding year, these figures show a great diminution in the volume of labor.

The average length of the working-day during the summer, for the entire country, was 12.3 hours, including 2.2 hours of rest, or a net duration of 10.1 hours, for individuals engaged in agriculture proper—that is, work in the fields, in granges, etc., not including those having the care of animals. "Summer" is applied to three months, after which the length of the working-day shortens. The length of the day and the division of labor varied considerably in different parts of the country.

Average wages for a farmer's man were 398 crowns (\$106.66) a year, which with board valued at 508 crowns (\$136.14) makes the valuation of his labor 906 crowns (\$242.80) a year. For a female servant the corresponding figures were 241 crowns (\$64.59), 414 crowns (\$110.95), and 655 crowns (\$175.54). Among the workmen employed by the day in summer the average wages were 3.77 crowns (\$1.01), and in



winter 3.02 crowns (\$0.81) or, with food, 2.63 crowns (\$0.70) in summer and 1.96 crowns (\$0.53) in winter. Women thus employed, a great number of whom work as assistants in the culture of beets and potatoes and in the harvesting of hay and wheat, received an average of 2.05 crowns (\$0.55) a day in summer, or about 1.39 crowns (\$0.37) with food; or sometimes as much as 2.23 crowns (\$0.60), or 1.52 crowns (\$0.41), with food.

SWEDEN.—*Socialstyrelsen. Kollektivavtal i Sverige år 1916. Stockholm, 1918. 54 pp. Sveriges officiella statistik. Socialstatistik.*

Report on collective contracts concluded in 1916 in Sweden, involving a total of 752 conflicts in which 4,219 employers and 117,358 workmen were concerned. The report gives figures on the parties contracting, whether syndicates or not, the jurisdiction and length of contracts, committees of conciliation and arbitration, terms of negotiations between the parties, wages, duration of work, indemnities for accidents or illness, and other clauses in the contracts.

— *Olycksfall i Arbeta år 1914. Stockholm, 1917. 67 pp. Sveriges officiella statistik. Socialstatistik.*

Statistics of labor accidents in Sweden in 1914 based upon reports required by the law of December 31, 1912. Tables give grouping by industry showing the number of accidents and relative frequency, distribution of accidents by causes, and by nature of accident, for 1913 and 1914.

— *Statens Förläkningsmäns för medling i Arbetstvister. Verksamhet under år 1916. Stockholm, 1918. 92 pp.*

According to this report on conciliation in labor conflicts in 1916, the number of cases affected in some measure by the efforts of boards of conciliation was 102 in 1916 against an average of 70 for each of the years 1907 to 1915; proceedings were held involving 1,138 employers and 33,864 workmen, the number of proceedings with suspension of work having been 54 or 75 per cent of the total number, corresponding to 68.1 per cent for the years 1907–1915; and there were 51 strikes and three mixed conflicts among the suspensions of work in 1916 in contrast with an average of 23 strikes, 4 lockouts, and 3 mixed conflicts in the years 1907 to 1915.

— *Statistiska Centralbyrån. Statistisk Årsbok för Sverige femte årgången 1918. Stockholm, 1918. 343 pp.*

This fifth number of the Statistical Yearbook of Sweden shows considerable modifications in the form followed in the previous yearbooks, also additions in the matter presented. An appendix gives international estimates on various subjects, which were prepared with the collaboration of the statistical service of Norway and Denmark.

SWITZERLAND.—*Département Suisse de l'Économie Publique. Recherches relatives à la rentabilité de l'agriculture pour la campagne 1915/16 (1<sup>er</sup> mars 1915–29 février 1916). Rapport du Secrétariat des Paysans Suisses au Département Suisse de l'Économie Publique. Berne, Imprimerie K.-J. Wyss Erben, 1917. 205 pp.*

Report of the office of the secretary of Swiss countrymen to the Department of Public Economy on researches relative to the income from agriculture for the agricultural year 1915–16.

UNION OF SOUTH AFRICA.—*Interim reports of the cost of living commission. Cape Town, 1918. 6 pp.*

Contains brief reports on (1) rise in prices of Indian foodstuffs; (2) government assistance to cooperative societies; (3) control of imports; (4) supervision of distribution; (5) proposed increase in the manufacturer's selling price of candles.

#### UNOFFICIAL.

AMERICAN FEDERATION OF LABOR.—*Report of the proceedings of the thirty-eighth annual convention, held at St. Paul, Minnesota, June 10 to 20, inclusive, 1918. Washington, 1918. 363 pp.*

An account of this convention is given on pages 310 to 316 of this issue of the LABOR REVIEW.

ASSOCIATION NATIONALE FRANÇAISE POUR LA PROTECTION LEGALE DES TRAVAILLEURS. *Nouvelle serie: No. 4. La réglementation légale de la convention collective de travail. Rapport de M. Arthur Groussier. Compte rendu des discussions.—Vœux adoptés. Paris, Librairie Félix Alcan, 1913. 147 pp.*

This report by M. Arthur Groussier, deputy of the Seine, on "The legal regulation of collective bargaining," forms No. 4 of the new series of publications of the French Association for the Legal Protection of Workingmen, followed by discussions at the general assemblies of the association in April and May, 1913, on various details of the subject and the resolutions adopted. An appendix contains the text of the project of law concerning collective bargaining presented in the name of the commission of labor to the Chamber of Deputies by M. Groussier.

ASSOCIATION NATIONALE FRANÇAISE POUR LA PROTECTION LEGALE DES TRAVAILLEURS.—*Nouvelle serie: No. 6. La deuxième conférence officielle de Berne. (Travail de nuit des jeunes ouvriers.—Journée de 10 heures.) Rapport de M. Alexandre Millerand. Compte rendu des discussions.—Vœux adoptés. Paris, Librairie Félix Alcan, 1914. 63 pp.*

Contains the report of M. Alexander Millerand to the general assembly of the association December 20, 1913, on the second official meeting of the International Association for the Legal Protection of Workingmen, which was held at Berne in September, 1913, followed by a discussion and a resolution. Two projects of law were submitted to the convention, one concerning the interdiction of night work for juveniles; and the other the fixing of a 10-hour day for women and children in industry. The text of the two acts is contained in an appendix.

— *Nouvelle serie: No. 7. Les dérogations au repos collectif du Dimanche. Rapport de M. Paul Aubriot. Compte rendu des discussions.—Vœux adoptés. Paris, Librairie Félix Alcan, 1914. 80 pp.*

Report, discussion, and resolution concerning Sunday as a compulsory rest day, with the text of circular, discussion, and law regarding weekly rest in industry in France.

— *Nouvelle serie: No. 8. Les veillées dans le commerce. Rapport de M. Charles Viennet. Compte rendu des discussions.—Vœux adoptés. Paris, Librairie Félix Alcan, 1914. 56 pp.*

The resolution passed by the association, following the report and discussion, provides for a 10-hour working-day in commercial establishments; for a law giving to municipalities the power to regulate uniformly the closing and opening hours for each class of such establishments after consultation with interested parties; and for further details concerning night work in commercial establishments.

— *Nouvelle serie: No. 9. La semaine Anglaise. Le repos de l'après-midi du Samedi. Rapport de M. Raoul Jay. Compte rendu des discussions.—Vœux adoptés. Paris, Librairie Félix Alcan, 1915. 80 pp.*

The "English week—Saturday afternoon rest" is considered with the history of the subject in the French Parliament, followed by a discussion and the text of a resolution of the association providing for the reduction of the Saturday working-day in all industrial and commercial establishments and for urging upon Parliament the adoption of Saturday afternoon rest for women.

— *Nouvelle serie: No. 10. La maternité ouvrière et sa protection légale en France. Rapport de Mme. Paul Germähling. Allocutions du Dr. Bonnaire et du Prof. Pinard. Paris, Librairie Félix Alcan, 1915. 63 pp.*

Report to the association on the legal protection of maternity among working women, with the text of French laws relating thereto up to July, 1913.

— *Nouvelle serie: No. 11. Le minimum de salaire dans l'industrie du vêtement. La loi du 10 juillet 1915. Par Raoul Jay. Paris, Librairie Félix Alcan, 1915. 69 pp.*

The origin, scope, and specific application of the law of July 10, 1915, concerning minimum wages in the clothing industries, which M. Jay considers as marking a decided progress in the idea of minimum salary regulation. The text of the law and of late circulars of the minister of labor and social welfare relating to it are contained in an appendix.

BENTINCK, LORD HENRY. *Industrial fatigue and the relation between hours of work and output, with a memorandum on sickness.* London, P. S. King & Son (Ltd.), 1918. 43 pp. Price, 6d. net.

BOURRILLON [MAURICE]. *Comment rééduquer nos invalides de la Guerre. L'Assistance aux estropiés et aux mutilés en Danemark, Suède et Norvège.* Paris, Berger-Levrault, 1916. 188 pp. Illustrated.

An account and discussion of French work in the reeducation of wounded soldiers constitutes the main portion of the book, to which is added an account of the author's investigation as to the assistance provided for the crippled and disabled in Denmark, Sweden, and Norway.

BROOKLYN RAPID TRANSIT CO. *Safety organization. B. R. T. System.* [Brooklyn,] 1914. 15 pp.

The plan of safety organization adopted by the Brooklyn Rapid Transit Co. July 2, 1914, as the result of studies embracing the entire field of safety work in the United States.

CHAPMAN, S. J., Ed. *Labor and capital after the war. By various writers. With an introduction by the Rt. Hon. J. H. Whitley, M. P.* London, John Murray, 1918. 280 pp.

A valuable contribution to the literature of the subject in the form of a collection of articles by prominent British authorities, published in the belief that "nothing but benefit could result from frank discussion, in good time, of what was present to the thoughts of representative men and women with regard to the future relations of employers and employed." The problem has been approached by the different writers from different standpoints, and, as the editor explains, "Some have been drawn by their argument into contact with issues that are at least controversial on sides that do not directly touch the subject matter of this volume, and none of us, perhaps, can hope to have written entirely without bias; but nevertheless there appears to be a notable core of agreement in the opinions here expressed on labor questions even by those whose differences of view on other questions are well known."

CHARITY ORGANIZATION SOCIETY. *Committee on Home Economics. "My money won't reach." The experience of 377 self-supporting families in New York City in endeavoring to make their incomes provide the essentials for healthful living. Report written by Emma A. Winslow.* New York, 105 East Twenty-second Street, April, 1918, 22 pp.

Two-fifths of the families visited in this study reported that their total family income was approximately the same as last year; one-fifth that it was smaller, due either to wage decrease or the loss of the wages of one worker; and two-fifths, that it had increased, sometimes because the women and children had gone to work. Of the 574 individual workers in these families employed both in January, 1917, and January, 1918, 57 per cent were reported as earning the same amount as last year; 12 per cent, less; and 31 per cent, more. These facts, in connection with the increased cost of living during the year, are studied under the headings of Frequency in wage change, Study of household budget readjustments, Food readjustments, Clothing economies, Rent readjustments, Fuel difficulties, Recreation, Savings, and What is the solution of these family problems?

COLLIER, D. J. *The girl in industry. With a foreword and introduction by B. L. Hutchins.* London, G. Bell & Sons (Ltd.), 1918. 56 pp. Price 9d., net.

A sketch based upon an investigation of the conditions and circumstances of the girl in industry, in England, undertaken as a contribution to the study of the effects of industrial employment on the health and physique of the female population of the country.

DAVOUST, HENRI. *L'Avenir du soldat Français.* Paris, Nouvelle Librairie Nationale, 1918. 157 pp.

A general outlook upon the future of the French soldier in the light of efforts which have been made and plans proposed for the betterment of his situation after the war.



FEDERATION OF NONCOMMERCIAL EMPLOYMENT AGENCIES, NEW YORK CITY. *Year-book. New York, 1917. 26 pp.*

Contains an explanation of the work of the Clearing House for Public Employment Offices, report of the employment committee of the Mayor's Committee of Women on National Defense to October 1, 1917, reports of the various other committees, and a list of agencies composing the membership of the federation.

FLEAGLE, FRED K. *Social problems in Porto Rico. Boston, D. C. Heath & Co., 1917. 139 pp.*

Designed to gather up the material available regarding the social problems of Porto Rico and to present it in such form that it may be made the basis of classroom study. The book is concerned chiefly with rural problems, not, as the author explains, because there are more social problems in the country than in towns, but because "so little has been done regarding country problems" and because the course for which this material was used as a basis was devoted to social rural problems. There are special chapters on Rural housing conditions, Woman and child labor, Industries, The land problem and unemployment, and Juvenile delinquents.

GARTON FOUNDATION. *Memorandum on the industrial situation after the war. Privately circulated among employers, representatives of labor, and public men of all parties, May-September, 1916. Now published as revised in the light of criticisms and suggestions received. London, Harrison & Sons, October, 1916. 96 pp. Price, 1s. net.*

The work of a group of men of varied views who came together at the instance of the Garton Foundation for the purpose of discussing the industrial situation in Great Britain at the close of the war. The authors have endeavored throughout to keep their eyes fixed upon the fundamental facts of industrial life and the spirit by which it should be animated, treating the more detailed problems of demobilization and reconstruction with a view to showing them in their right proportion and relation to the main issues.

GREIG, G. A. *Women's work on the land. With a foreword by the Rt. Hon. Sir Ailwyn Fellows. London, Jarrold & Sons. 48 pp. Illustrated. Price, 3d. net.*

In four chapters: I, Agricultural difficulties; II, Women's labor necessary to the nation; III, Organization—The enrollment of women workers for the land, how the demands of farmers can be met; IV, Agricultural calendar—Work women can do, Suitable dress, Conditions of employment, Training; with appendixes on National health insurance rates for women, List of women's county committees (where formed) and names and addresses of secretaries, and List of organizing officers attached to the labor exchanges, together with the centers comprising each division. Seventeen thousand women had been enrolled for war service on the land under the scheme for their mobilization devised by the Board of Trade, in consultation with the board of agriculture. A calendar is given of farm work suitable for women, arranged by months, and a description of the costume for women farm workers approved by the board of agriculture, also suggestions for dealing with the question of wages.

HEATH, FRANCIS GEORGE. *British rural life and labor. London, P. S. King & Son, 1911. 318 pp.*

A detailed account of the methods of employing and utilizing agricultural labor in Great Britain and Ireland.

HENDERSON, ARTHUR. *The aims of labor. London, Headley Bros., 1918. 112 pp. 1s. net.*

A collection of essays, most of which appeared first as separate articles, dealing with some of the vital problems now confronting the democratic forces in England. The chapter headings include the following titles: The political labor movement; The new party and its program; Solidarity; World security; A people's peace; No economic boycott; Revolution or compromise?; The spirit of democracy. The appen-

dixes contain (1) The memorandum on war aims agreed upon by the interallied labor and socialist conference held at London, in February, 1918, and (2) Labor and the new social order, a draft report on reconstruction.

HICHENS, W. L. *Some problems of modern industry. Being the Watt anniversary lecture for 1918.* London, Nisbet & Co. (Ltd.), 1918. 61 pp.

HOBSON, S. G. *National guilds. An inquiry into the wage system and the way out.* Edited by A. R. Orage. Second edition. London, G. Bell & Sons (Ltd.), 1917. 370 pp.

HOGG, ALBERT N. *What other nations have done to help their disabled soldiers and sailors.* Philadelphia, Corn Exchange National Bank [n. d.]. 47 pp.

Compiled largely from reports and publications issued by authority of the British Ministry of Pensions. Data from Belgian, French, and American sources are also included.

IMMIGRANTS' PROTECTIVE LEAGUE. *The immigrant and the war: Being the ninth annual report, for the year ending Dec. 31, 1917.* Chicago, 824 South Halsted Street, 1918. 29 pp.

Explains the various means by which the league gives assistance to immigrants under conditions created by the war. In addition to this special work occasioned by present conditions, the regular work of the league is described. This includes the protection of immigrants upon arrival, a bureau of information and social service for those unable to speak English, promotion of educative work for the adult immigrants, and advice and information as to employment. The total number who came to the league to complain of some injustice or to ask for advice in 1917, according to the report, was 4,911, an increase of 1,472 over the number for the year before.

INDUSTRIAL RECONSTRUCTION COUNCIL. *Trade parliaments. Why they should be formed and how to form one in your trade. An explanation of the Whitley report.* London, Industrial Reconstruction Council, 1918. 12 pp.

A propagandist pamphlet of the Industrial Reconstruction Council. A short description of the council and its aims may be found on pages 64 to 66 of this issue of the MONTHLY LABOR REVIEW.

— *Report for the three months ending March 31, 1918.* London, 1918, 3 pp.

JEVONS, H. STANLEY. *The consolidation of agricultural holdings in the United Provinces.* Allahabad (India), The University of Allahabad, 1918. 55 pp., Map. Bulletin of the Economics Department of the University of Allahabad, No. 9.

An attempt to outline, so far as relates to the United Provinces, one of the most important practical steps which are necessary in order to realize a capitalistic development of agriculture.

KNOEPEL, C. E. *Women in Industry.* New York, 1918. 123 pp.

"An address based on answers to 1,000 questionnaires on women in industry delivered before the National Conference on Labor Problems under War Conditions under the joint auspices of the Society of Industrial Engineers and the Western Efficiency Society, Chicago, March, 1918." The result of the questionnaire indicates that while women were not needed in industry at the time of the meeting, they would be needed later in increasing numbers. The address includes a review of English experience in the employment of women and suggests provisions which should be made in the United States to utilize their abilities when they are needed.

LABOR PARTY (GREAT BRITAIN). *Constitution, together with Local Labor Party's rules.* (Adopted at the London conference, Feb. 20, 1918.) Head office, Victoria Street, Westminster SW. 1. London, Cooperative Printing Society (Ltd.), 1918. 62 pp.

— *Report of the executive committee presented to the party conference, Central Hall, Westminster, London, SW. 1, Wednesday, June 26, 1918, and two following days.* London, 33 Eccleston Square. 23 pp.

LABOR PARTY (GREAT BRITAIN).—*Report of the seventeenth annual conference held in the Albert Hall, Nottingham, on Wednesday, Jan. 23, 1918, and two following days, and the adjourned conference held in the Central Hall, Westminster, London, S.W., on Tuesday, Feb. 26, 1918. London, 1 Victoria Street, Westminster, S.W. 1, 1918. 152 pp. Price, 6d. By post, 8d.*

LE BARON, LÉON. *Le problème du logement ouvrier; les mesures législatives prises en France pour le résoudre. Paris, 1917. 240 pp.*

The author attributes the great housing shortage in the cities to the influx of the rural population. This exodus from the rural district is largely the result of the defective housing provided for agricultural laborers, the great development of railroad transportation, and the bringing of the youths of the country through the system of obligatory military service into touch with the attractions of the city. The volume summarizes and analyzes French legislation in aid of low-cost dwellings for workmen, pleads for a greater extension of the activities of the local housing committees, and an increase in the amount of the tax exemption on low-cost houses—exemptions which at present are noted as very insignificant. Charitable institutions of various kinds have not fully used the advantages of aiding the housing movement opened to them. The regulations of the National Bank of Deposits have hampered borrowing by the credit associations; the work of the savings banks is progressing. Private building and loan associations, particularly the cooperative type, are commended. The defect of French legislation, the author states, is its failure to include rural housing for remedial action, although rural housing is frequently worse than in the cities. Garden cities should be vigorously promoted.

LESCOHER, DON D. *A clearing house for labor. In Atlantic Monthly for June, 1918, pp. 773-783. 41 Mt. Vernon Street, Boston.*

This article emphasizes two points as fundamental to a successful organization of the labor market: "First, a consolidation of all public employment agencies into a single system under the auspices of the Federal Government, with subdistricts and clearing houses just as we have in the Federal reserve banking system; and, second, a monopoly of the labor market, so far as employment-agency work is concerned, by this Federal employment system."

L'OEUVRE "POUR NOS SOLDATS AVEUGLES." *Rapport. Assemblée générale du 27 Novembre 1917. Nice, 1918. 19 pp.*

The report of the general meeting held on November 27, 1917, of the organization known as the work "for our blind soldiers," which was founded in Nice by Mme. Marguet in 1915 and recognized by a ministerial decree of July 20, 1917.

LOYAL LEGION LOGGERS AND LUMBERMEN. *Camp sanitation survey (with recommendations). For the lumber industry of the Pacific Northwest. Portland, Oreg. Headquarters Spruce Production Division, Loyal Legion Loggers and Lumbermen, June 1, 1918. 64 pp.*

MACDONALD, J. RAMSEY. *Socialism after the war. Manchester (England), National Labor Press (Ltd.). 80 pp. Price, 1s.*

A socialistic program designed to meet conditions after the war, offered to the members of the Independent Labor Party, "not as a complete set of details, but as a general and a guiding survey; not as a dogmatic pronouncement, but for your consideration."

MANAGING A BUSINESS IN WAR TIME. *Business practices and methods actually tested under war-time conditions, including data based on official British investigations—Suggestions for doing more with fewer hands in stores, offices, factories, and farm work. Chicago, A. W. Shaw Co., 1918. 2 vols., 402 pp.*

Chapters by different authors on various phases of the subject collected under four headings: Pointers from abroad that will help; Hints from experience war work gave England; Ways for American business to meet war-time conditions; Some problems to think about after we've won the War. There are chapters on How England is meeting the war problem, by the Rt. Hon. John Hodge, minister of labor; The problem of man-power in war time; How working hours affect output, and Women and war work.



MAWSON, THOMAS H. *Afforestation and the partially disabled. A sequel to An Imperial obligation—Industrial villages for partially disabled soldiers, sailors, and flying men.* London, Grant Richards (Ltd.), 1917. 46 pp. Illustrated. The "Concrete example" series, number one. Price, 1s.

The first of a series of booklets, each written with a definite and distinct objective and all descriptive of some half dozen classes of settlement designed to meet the needs of partially disabled soldiers. The author has selected and described a typical site as adapted to the purpose of such a settlement and he has followed out the plan under the headings of The proposed development, The personnel, and Conclusion. "An Imperial obligation," of which this series forms the sequel, was reviewed in the February, 1918, issue of the MONTHLY REVIEW, page 236.

MITCHELL, MAJ. ROBERT. *What can be done to train disabled sailors and soldiers in technical institutions.* Paper read at a general meeting of the Association of Technical Institutions, 20th and 21st October, 1916, at the Imperial College of Science and Technology, London, SW. Bolton, (England). Price, 3d each, or 2s. 3d. per dozen.

NATIONAL CIVIL LIBERTIES BUREAU. *The truth about the I. W. W. Facts in relation to the trial at Chicago, by competent industrial investigators and noted economists.* New York, 70 Fifth Avenue, April, 1918. 56 pp.

NATIONAL SAFETY COUNCIL. *Posters.* Chicago, [n. d.]

The council has for some time issued posters for use on workshop bulletin boards, illustrating safe and unsafe practices in various lines of work. The scope of these bulletins has been gradually enlarged and numerous series are now issued. There are included (1) Bulletin board series, (2) Chemical section series, (3) Electric railway series, (4) Foundry series, (5) Health service series, (6) Industrial hygiene series, (7) Iron and steel series, (8) Mining series, (9) Paper and pulp series, (10) Public safety series, (11) Public utilities series, (12) Service series, (13) Steam railroad series, and (14) Textile series.

— *Safe practices.* Nos. 1 to 10. Chicago, 1916–1918.

These bulletins comprise a series of monographs dealing with accident hazards. Each issue states the particular accident-prevention problem involved and the common and best known practice for its solution. To date 10 monographs have reached this bureau. They deal with (1) ladders, (2) stairs and stairways, (3) boiler rooms, (4) crane construction, (5) belt shifters and belt shippers, (6) knots, bends, hitches, and slings, (7) belts and guards, (8) shafting, couplings, pulleys, gearings, (9) engine guarding and engine stops, and (10) oiling devices and oilers.

PHILLIPS, MARION, EDITOR. *Women and the Labor Party.* By various women writers. Edited with an introduction by Dr. Marion Phillips and a foreword by the Rt. Hon. Arthur Henderson, M. P. London, Headley Bros., Ltd. [1918.] 110 pp.

RED CROSS INSTITUTE FOR CRIPPLED AND DISABLED MEN. *Publications, Series 1.* New York, 311 Fourth Avenue. No. 12. *Provision for war cripples in Italy,* by Ruth Underhill. May, 31, 1918. 18 pp. No. 13. *Provision for war cripples in Germany,* by Ruth Underhill. June 8, 1918. 45 pp. No. 14. *Provision for vocational reeducation of disabled soldiers in France,* by Gladys Gladding Whiteside. June 15, 1918. 29 pp.

RED CROSS INSTITUTE FOR THE BLIND. *Publications. Series 1, No. 1. Our blinded soldiers; Instructions for directors of schools.* By Eugene Brioux. Translated by Gladys Gladding Whiteside. Baltimore, June 25, 1918. 12 pp.

ROLLAND, LOUIS. *La grève des tramways de Paris et du Département de la Seine et le décret du 31 Octobre 1916.* Paris (5<sup>e</sup>) M. Giard. & E. Brière, 1916. 27 pp.

This monograph on The strike of the tramways of Paris and of the Department of the Seine is reprinted from the Review of public law and political science in France and other countries, for October, November, and December, 1916.

ROWNTREE, MAURICE L. *Cooperation or chaos? A handbook, written at the request of the "War and social order" committee of the Society of Friends. Revised edition. London, Headley Bros. (Ltd.), 1918. 108 pp. Price, 6d., net.*

In two parts, critical and constructive, dealing with social and industrial problems emphasized by the war, and Conclusions. Under the head of National reconstruction—(a) Problems at the root of industrial unrest, (b) Emergency measures, (c) The greater problem—the author analyzes labor unrest in its relation to the social and economic conditions in which it is rooted and outlines a scheme of reconstruction based upon a system of national guilds to supplant the wage system, of which he says: "Reformers have sought to raise wages, but have not most of us failed to examine the ethics of the wage system as a system? What is the matter with the wage system? Above all, the fact that it treats labor as a commodity."

RUSSELL SAGE FOUNDATION. *The war program of the State of South Carolina. A report prepared at the request of Gov. Richard I. Manning, the State Council of Defense, and the State Board of Charities and Corrections, by Hastings H. Hart. New York, 130 East 22d Street, February, 1918. 61 pp.*

This report is based upon a first-hand study of the various public and private agencies referred to and of the war conditions under which they are now operating. It includes the study of the campaign for food conservation; the obligation toward soldiers, sailors, and their families; war activities involved with social activities; care of convalescent soldiers; child dependency and the war; reformatory work; and education.

SEXTON, F. H. *Vocational rehabilitation of soldiers suffering from nervous diseases. Publication No. 31. Boston, Massachusetts Society for Mental Hygiene, 1132 Kimball Bldg., 18 Tremont St. [1918.] 12 pp.*

A paper read at the annual conference of the Massachusetts Society for Mental Hygiene, Boston, January 9, 1918, and reprinted from Mental Hygiene, Vol. II, No. 2, pp. 265-276, April, 1918. The author is vocational officer of the Military Hospitals Commission of Canada, and outlines the plan for the care of Canadian soldiers suffering from nervous diseases, for their reeducation if necessary, and their return to civil life.

SHERMAN, P. TECUMSEH. *Workmen's compensation law. "Personal injury by accident arising out of and in the course of the employment." New York, Workmen's Compensation Publicity Bureau, 1916. 67 pp.*

An attempt to compile a concise but complete summary of the decisions construing the British law on workmen's compensation, to which are added under each topic abbreviated summaries of so much of the French and German laws as is appropriate for comparison. The decisions construing American statutes, being, according to the author, too few and covering too small a portion of the field to be summarized separately, are cited in footnotes under the text relating to the British law.

SOCIÉTÉ POUR L'ÉTUDE PRACTIQUE DE LA PARTICIPATION DU PERSONNEL DANS LES BÉNÉFICES. *Bulletin de la participation aux bénéfices. Quarantième année, 1918, 1<sup>re</sup> livraison. Paris, Imprimerie Chaire, 1918. 56 pp. Price, 5 francs a year.*

First issue for 1918—its fortieth year—of the Bulletin of profit sharing, the organ of the Society for the Practical Study of Profit Sharing, which was recognized as a public utility by a decree of 1889. The leading article of this issue is an analysis of Bulletin 208 of the United States Bureau of Labor Statistics, "Profit sharing in the United States." The issue also records the proceedings of the meetings of the Administrative Council of the society; a report on Profit sharing in the building industry in France, based on the experience of the Maison Boissière, roofers and plumbers; and a retrospective study made of the inquiry of the extraparlimentary commission of labor associations, 1883 to 1888.

SOUCHON, M. *La Remise au travail des mutilés. Paris, Typographie Philippe Renouard, 1916. 15 pp. Société d'encouragement pour l'industrie nationale. Extrait du Bulletin de mai-juin, 1916.*

Reprint of a lecture on "Returning the disabled soldiers to industry," delivered before a public meeting of the Society for the Encouragement of National Industry and published in the bulletin of the society for May-June, 1916.

SPARKES, MALCOLM. *A memorandum on industrial self-government. Together with a draft scheme for a builders' national industrial parliament.* [London, 1917.] 28 pp.

An attempt to set out in detail the considerations that have led the author to advocate the setting up of national industrial parliaments in the staple industries, as a contribution toward the solution of some of the most urgent problems that confront the country at this time; to which is added a scheme originally drawn up for the building industry, but the principles of which the author believes to be equally applicable to most of the staple industries.

TRADES UNION CONGRESS. *Report of proceedings at the forty-ninth annual Trades Union Congress held in the Palace Hall, Blackpool, on September 3 to 8, 1917.* Edited by C. W. Bowerman, secretary; reported by H. Whitehorn, official reporter to the Congress. Published by authority of the Congress and the Parliamentary Committee. London, Cooperative Printing Society (Ltd.), 1917. 392 pp.

— *Parliamentary Committee. Quarterly reports.* London, Cooperative Printing Society (Ltd.). Twenty-eighth December, 1917. 111 pp. Twenty-ninth March, 1918. 42 pp. Thirtieth June, 1918. 41 pp.

TURNER, SAMUEL. *From war to work.* London, Nisbet & Co. Ltd. (1918.) 109 pp.

An attempt to show in their true light one or two of the great forces which go to make or mar nations, according to the author, who states further in his introduction that "there appears to me to be no hope of harmony between labor and capital until both can be persuaded to approach their problems from an entirely new point of view."

UNIVERSITY OF ILLINOIS. *College of Agriculture. The use of farm labor during the war.* By W. F. Handschin and J. B. Andrews. Urbana, March, 1918. 11 pp. Extension service in agriculture and home economics in cooperation with the United States Department of Agriculture. Extension Circular No. 20.

UNIVERSITY OF WISCONSIN. *Agricultural experiment station. Bulletin 282. Cooperation in Wisconsin.* By B. H. Hibbard and Asher Hobson. Madison, May, 1917. 44 pp.

Account of agricultural cooperation in the State, showing by statistics the results of cooperation in different lines. According to a table showing the annual amount of business done cooperatively, in nine lines of industry it was estimated that 2,070 businesses were included, the volume of which amounted to \$62,646,000.

— *Extension Division Bulletin. Serial No. 944; General series No. 730. The manual arts as vocations.* Madison, June, 1918. 28 pp. Price, 10 cents. General Information and Welfare, Vocational Guidance Series No. 2.

This bulletin was prepared in the department of manual arts of the University of Wisconsin by members of a seminary class.

WOLFF, HENRY W. *The future of our Agriculture.* London, P. S. King & Son (Ltd.), 1918. 503 pp.

Contains chapters on Labor, referring exclusively to English agricultural labor; Small holdings; and A full reward for the tiller.

WORKERS' EDUCATIONAL ASSOCIATION. *Education Yearbook, 1918.* London, 1918. 516 pp.

This initial issue of the "W. E. A. Yearbook" contains, in addition to detailed information as to the educational system in England and other countries, an account of the organization, activities, and aims of the association.

In 1903 representatives of the various labor and educational organizations of Great Britain met at Oxford to consider the formation of a society which would constitute an alliance between labor and learning, and thus afford a means by which labor could express its educational ideals and needs to the universities. The Workers' Educational Association was the result of that meeting. In 1905 a similar conference was held, and in 1907 the representatives of labor invited the vice chancellor of the university to meet seven representatives of labor for the purpose of conferring and reporting upon "Oxford and working-class education."



This report recommended that a committee be appointed at Oxford to establish and supervise tutorial classes in working-class areas. Such a committee was appointed, and all the other universities of England and Wales have established similar committees. The university tutorial class joint committees, which consist of an equal number of labor and of university representatives, provide tutors for the tutorial classes.

"At the close of the year 1916-17, the association registered 10,750 members and 2,336 affiliated organizations, mainly labor. These were organized in 191 branches, 10 districts, and the central association." These branches and districts are for most purposes autonomous bodies, governed by their own members, and affiliated bodies. The central association acts as a coordinating body and is alone responsible in questions of national policy.

The work of the organization includes not only the arousing of a desire for education among men and women, but also the creation of a system of adult education in harmony with labor and educational agencies which shall really be a "Workers' University." This is being accomplished by means of tutorial classes, one-year classes, study circles, lectures, and summer schools. One hundred and twenty-one tutorial classes were conducted during the winter of 1917-18, history and economics being favorite subjects. In 1916-17 there were 154 one-year classes, 70 study circles, and 526 public lectures. These dealt largely with subjects pertaining to the war, to "Educational reconstruction," "Child labor and education," etc.

The "W. E. A. colleges" which are being established in various places are an important and interesting phase of the work of the organization. In the women's classes, which have successfully "carried on" notwithstanding the pressure of war work and irregular hours, the most popular subjects are: First aid, Home nursing, and Hygiene, while the rest of the classes are divided among History, French, Literature, Dressmaking and Millinery, Elementary Biology, etc. The Central Library for students supplies books to any classes or to any members of the association, 5,299 volumes having been issued during the year 1917-18. The "Highway," the official organ of the association, is published monthly.

While the peculiar province of the association is to promote adult education, one of its most significant recent undertakings is the movement in defense of the youth of England. Believing that the proposals of the New Education (No. 2) Bill, now before Parliament, while praiseworthy in themselves, do not represent such an improvement in the existing educational order as will result in a system adequate for future needs, the association, in September, 1916, appointed a committee to draft recommendations for amendments to the bill which might be put before the public and the Government. These amendments with the provisions of the bill suggested for amendment are fully discussed in "The choice before the nation," a pamphlet recently issued by the association. The suggested amendments advocate in no uncertain terms a complete, free education for all classes, and condemn the sacrifice of the health and education of any class of children to the cause of industry.

YOUNG MEN'S CHRISTIAN ASSOCIATION. *International Committee. Industrial Department. Among industrial workers (ways and means). A handbook for associations in industrial fields. New York, 124 East 28th Street, 1916. 118 pp.*

Contains Who are industrial workers? The field; Some special reasons for attention to the industrial field; Four essentials to industrial extension; Surveys; Practical plans, within the building and outside of the building; The immigrant movement; The industrial service movement; Motion picture films; Loan list of lantern slides; Exhibits; Merchandise for exhibits; Leaflets and pamphlets; The industrial department of the international committee—what it is and does; Suggested industrial policy for State committees; Schedule of occupations which may be classified as industrial.



## SERIES OF BULLETINS PUBLISHED BY THE BUREAU OF LABOR STATISTICS.

*[The publication of the annual and special reports and of the bimonthly bulletin was discontinued in July, 1912, and since that time a bulletin has been published at irregular intervals. Each number contains matter devoted to one of a series of general subjects. These bulletins are numbered consecutively beginning with No. 101, and up to No. 236 they also carry consecutive numbers under each series. Beginning with No. 237 the serial numbering has been discontinued. A list of the series is given below. Under each is grouped all the bulletins which contain material relating to the subject matter of that series. A list of the reports and bulletins of the bureau issued prior to July 1, 1912, will be furnished on application.]*

### Wholesale Prices.

- Bul. 114. Wholesale prices, 1890 to 1912.
- Bul. 149. Wholesale prices, 1890 to 1913.
- Bul. 173. Index numbers of wholesale prices in the United States and foreign countries.
- Bul. 181. Wholesale prices, 1890 to 1914.
- Bul. 200. Wholesale prices, 1890 to 1915.
- Bul. 226. Wholesale prices, 1890 to 1916.

### Retail Prices and Cost of Living.

- Bul. 105. Retail prices, 1890 to 1911: Part I.  
Retail prices, 1890 to 1911: Part II—General tables.
- Bul. 106. Retail prices, 1890 to June, 1912: Part I.  
Retail prices, 1890 to June, 1912: Part II—General tables.
- Bul. 108. Retail prices, 1890 to August, 1912.
- Bul. 110. Retail prices, 1890 to October, 1912.
- Bul. 113. Retail prices, 1890 to December, 1912.
- Bul. 115. Retail prices, 1890 to February, 1913.
- Bul. 121. Sugar prices, from refiner to consumer.
- Bul. 125. Retail prices, 1890 to April, 1913.
- Bul. 130. Wheat and flour prices, from farmer to consumer.
- Bul. 132. Retail prices, 1890 to June, 1913.
- Bul. 136. Retail prices, 1890 to August, 1913.
- Bul. 138. Retail prices, 1890 to October, 1913.
- Bul. 140. Retail prices, 1890 to December, 1913.
- Bul. 156. Retail prices, 1907 to December, 1914.
- Bul. 164. Butter prices, from producer to consumer.
- Bul. 170. Foreign food prices as affected by the War.
- Bul. 184. Retail prices, 1907 to June, 1915.
- Bul. 197. Retail prices, 1907 to December, 1915.
- Bul. 228. Retail prices, 1907 to December, 1916.

### Wages and Hours of Labor.

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 118. Ten-hour maximum working day for women and young persons. \*
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 128. Wages and hours of labor in the cotton, woolen, and silk industries, 1890 to 1912.
- Bul. 129. Wages and hours of labor in the lumber, millwork, and furniture industries, 1890 to 1912.
- Bul. 131. Union scale of wages and hours of labor, 1907 to 1912.
- Bul. 134. Wages and hours of labor in the boot and shoe and hosiery and knit goods industries, 1890 to 1912.
- Bul. 135. Wages and hours of labor in the cigar and clothing industries, 1911 and 1912.
- Bul. 137. Wages and hours of labor in the building and repairing of steam railroad cars, 1890 to 1912.



#### **Wages and Hours of Labor—Concluded.**

- Bul. 143. Union scale of wages and hours of labor, May 15, 1913.
- Bul. 146. Wages and regularity of employment in the dress and waist industry of New York City.
- Bul. 147. Wages and regularity of employment in the cloak, suit, and skirt industry.
- Bul. 150. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1913.
- Bul. 151. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1912.
- Bul. 153. Wages and hours of labor in the lumber, millwork, and furniture industries, 1907 to 1913.
- Bul. 154. Wages and hours of labor in the boot and shoe and hosiery and underwear industries, 1907 to 1913.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 161. Wages and hours of labor in the clothing and cigar industries, 1911 to 1913.
- Bul. 163. Wages and hours of labor in the building and repairing of steam railroad cars, 1907 to 1913.
- Bul. 168. Wages and hours of labor in the iron and steel industry in the United States, 1907 to 1913.
- Bul. 171. Union scale of wages and hours of labor, May 1, 1914.
- Bul. 177. Wages and hours of labor in the hosiery and underwear industry, 1907 to 1914.
- Bul. 178. Wages and hours of labor in the boot and shoe industry, 1907 to 1914.
- Bul. 187. Wages and hours of labor in the men's clothing industry, 1911 to 1914.
- Bul. 190. Wages and hours of labor in the cotton, woolen, and silk industries, 1907 to 1914.
- Bul. 194. Union scale of wages and hours of labor, May 1, 1915.
- Bul. 204. Street railway employment in the United States.
- Bul. 214. Union scale of wages and hours of labor, May 15, 1916.
- Bul. 218. Wages and hours of labor in the iron and steel industry, 1907 to 1915.
- Bul. 225. Wages and hours of labor in the lumber, millwork, and furniture industries, 1915.
- Bul. 232. Wages and hours of labor in the boot and shoe industry, 1907 to 1916.
- Bul. 238. Wages and hours of labor in woolen and worsted goods manufacturing, 1916.
- Bul. 239. Wages and hours of labor in cotton goods manufacturing and finishing, 1916.
- Bul. 245. Union scale of wages and hours of labor, May 15, 1917. [In press.]

#### **Employment and Unemployment.**

- Bul. 109. Statistics of unemployment and the work of employment offices in the United States.
- Bul. 172. Unemployment in New York City, N. Y.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 183. Regularity of employment in the women's ready-to-wear garment industries.
- Bul. 192. Proceedings of the American Association of Public Employment Offices.
- Bul. 195. Unemployment in the United States.
- Bul. 196. Proceedings of the Employment Managers' Conference held at Minneapolis, January, 1916.
- Bul. 202. Proceedings of the conference of the Employment Managers' Association of Boston, Mass., held May 10, 1916.
- Bul. 206. The British system of labor exchanges.
- Bul. 220. Proceedings of the Fourth Annual Meeting of the American Association of Public Employment Offices, Buffalo, N. Y., July 20 and 21, 1916.
- Bul. 223. Employment of women and juveniles in Great Britain during the War.
- Bul. 227. Proceedings of the Employment Managers' Conference, Philadelphia, Pa., April 2 and 3, 1917.
- Bul. 235. Employment system of the Lake Carriers' Association.
- Bul. 241. Public employment offices in the United States.
- Bul. 247. Proceedings of the Employment Managers' Conference, Rochester, N. Y., May 9, 10, and 11, 1918. [In press.]

#### **Women in Industry.**

- Bul. 116. Hours, earnings, and duration of employment of wage-earning women in selected industries in the District of Columbia.
- Bul. 117. Prohibition of night work of young persons.
- Bul. 118. Ten-hour maximum working-day for women and young persons.
- Bul. 119. Working hours of women in the pea canneries of Wisconsin.
- Bul. 122. Employment of women in power laundries in Milwaukee.
- Bul. 160. Hours, earnings, and conditions of labor of women in Indiana mercantile establishments and garment factories.
- Bul. 167. Minimum-wage legislation in the United States and foreign countries.
- Bul. 175. Summary of the report on condition of woman and child wage earners in the United States.
- Bul. 176. Effect of minimum-wage determinations in Oregon.
- Bul. 180. The boot and shoe industry in Massachusetts as a vocation for women.
- Bul. 182. Unemployment among women in department and other retail stores of Boston, Mass.
- Bul. 193. Dressmaking as a trade for women in Massachusetts.
- Bul. 215. Industrial experience of trade-school girls in Massachusetts.
- Bul. 223. Employment of women and juveniles in Great Britain during the War.

#### **Workmen's Insurance and Compensation (including laws relating thereto).**

- Bul. 101. Care of tuberculous wage earners in Germany.
- Bul. 102. British National Insurance Act, 1911.
- Bul. 103. Sickness and accident insurance law of Switzerland.
- Bul. 107. Law relating to insurance of salaried employees in Germany.
- Bul. 126. Workmen's compensation laws of the United States and foreign countries.
- Bul. 155. Compensation for accidents to employees of the United States.
- Bul. 185. Compensation legislation of 1914 and 1915.
- Bul. 203. Workmen's compensation laws of the United States and foreign countries.
- Bul. 210. Proceedings of the Third Annual Meeting of the International Association of Industrial Accident Boards and Commissions.
- Bul. 212. Proceedings of the conference on social insurance called by the International Association of Industrial Accident Boards and Commissions.
- Bul. 217. Effect of workmen's compensation laws in diminishing the necessity of industrial employment of women and children.
- Bul. 240. Comparison of workmen's compensation laws of the United States.
- Bul. 243. Workmen's compensation legislation in the United States and foreign countries, 1917 and 1918. [In press.]
- Bul. 248. Proceedings of the fourth annual meeting of the International Association of Industrial Accident Boards and Commissions. [In press.]

#### **Industrial Accidents and Hygiene.**

- Bul. 104. Lead poisoning in potteries, tile works, and porcelain enameled sanitary ware factories.
- Bul. 120. Hygiene of the painters' trade.
- Bul. 127. Dangers to workers from dusts and fumes, and methods of protection.
- Bul. 141. Lead poisoning in the smelting and refining of lead.
- Bul. 157. Industrial accident statistics.
- Bul. 165. Lead poisoning in the manufacture of storage batteries.
- Bul. 179. Industrial poisons used in the rubber industry.
- Bul. 188. Report of British departmental committee on danger in the use of lead in the painting of buildings.
- Bul. 201. Report of committee on statistics and compensation insurance cost of the International Association of Industrial Accident Boards and Commissions. [Limited edition.]
- Bul. 205. Anthrax as an occupational disease.
- Bul. 207. Causes of death by occupation.
- Bul. 209. Hygiene of the printing trades.
- Bul. 216. Accidents and accident prevention in machine building.
- Bul. 219. Industrial poisons used or produced in the manufacture of explosives.
- Bul. 221. Hours, fatigue, and health in British munition factories.
- Bul. 230. Industrial efficiency and fatigue in British munition factories.
- Bul. 231. Mortality from respiratory diseases in dusty trades.
- Bul. 234. Safety movement in the iron and steel industry, 1907 to 1917.
- Bul. 236. Effect of the air hammer on the hands of stonecutters.

**Conciliation and Arbitration (including strikes and lockouts).**

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